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 NEWS  1            Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2            "Ask CAS" for self-help around the clock
 NEWS  3  May 10    PROUSDDR now available on STN
 NEWS  4  May 19    PROUSDDR: One FREE connect hour, per account, in both May
                    and June 2004
 NEWS  5  May 12    EXTEND option available in structure searching
 NEWS  6  May 12    Polymer links for the POLYLINK command completed in REGISTRY
 NEWS  7  May 17    FRFULL now available on STN
 NEWS  8  May 27    New UPM (Update Code Maximum) field for more efficient patent
                    SDIs in CAplus
 NEWS  9  May 27    CAplus super roles and document types searchable in REGISTRY
 NEWS 10  May 27    Explore APOLLIT with free connect time in June 2004
 NEWS 11  Jun 22    STN Patent Forums to be held July 19-22, 2004
 NEWS 12  Jun 28    Additional enzyme-catalyzed reactions added to CASREACT
 NEWS 13  Jun 28    ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG,
                    and WATER from CSA now available on STN(R)

 NEWS EXPRESS  MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 14:41:16 ON 04 JUL 2004

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    0.21       0.21

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STRUCTURE FILE UPDATES:     2 JUL 2004  HIGHEST RN 703404-07-3
DICTIONARY FILE UPDATES:    2 JUL 2004  HIGHEST RN 703404-07-3

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

  Please note that search-term pricing does apply when
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Experimental and calculated property data are now available. For more
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http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L1       STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1               STR

=> s l1
SAMPLE SEARCH INITIATED 14:42:52 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    9066 TO ITERATE

 11.0% PROCESSED     1000 ITERATIONS                                23 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       175615 TO   187025
PROJECTED ANSWERS:            3304 TO     5036

L2            23 SEA SSS SAM L1

=>
L3       STRUCTURE UPLOADED

=> d l3
L3 HAS NO ANSWERS
L3               STR

=> s l3
SAMPLE SEARCH INITIATED 14:45:16 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     521 TO ITERATE

100.0% PROCESSED      521 ITERATIONS                                11 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         9051 TO    11789
PROJECTED ANSWERS:              21 TO      417

L4            11 SEA SSS SAM L3

=> s l3 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 14:45:22 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  10019 TO ITERATE

100.0% PROCESSED   10019 ITERATIONS                               174 ANSWERS
SEARCH TIME: 00.00.01
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L5          174 SEA SSS FUL L3

=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   157.52     157.73

FILE 'HCAPLUS' ENTERED AT 14:45:27 ON 04 JUL 2004
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FILE COVERS 1907 - 4 Jul 2004  VOL 141 ISS 2
FILE LAST UPDATED: 2 Jul 2004  (20040702/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> s l5
L6          48 L5

=> s l6 and brown, d?/au
          7795 BROWN, D?/AU
L7           0 L6 AND BROWN, D?/AU

=> s l6 and graneto, m?/au
            39 GRANETO, M?/AU
L8           0 L6 AND GRANETO, M?/AU

=> s l6 and ludwig, c?/au
           267 LUDWIG, C?/AU
L9           0 L6 AND LUDWIG, C?/AU

=> s l6 and talley, j?/au
           189 TALLEY, J?/AU
L10          0 L6 AND TALLEY, J?/AU

=> d l6, ibib abs fhitstr, 1-48

L6   ANSWER 1 OF 48  HCAPLUS  COPYRIGHT 2004 ACS on STN
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Full Text | Citing References

```
ACCESSION NUMBER:         2004:182368  HCAPLUS
DOCUMENT NUMBER:          140:229401
TITLE:                    Three hybrid assay system for isolating ligand-binding
                          polypeptides and for isolating small mol. ligands
INVENTOR(S):              Come, Jon H.; Becker, Frank; Kley, Nikolai A.;
```

	Reichel, Christoph
PATENT ASSIGNEE(S):	USA
SOURCE:	U.S. Pat. Appl. Publ., 238 pp., Cont.-in-part of U.S. Ser. No. 91,177. CODEN: USXXCO
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004043388	A1	20040304	US 2002-234985	20020903
US 2003165873	A1	20030904	US 2002-91177	20020304

PRIORITY APPLN. INFO.:

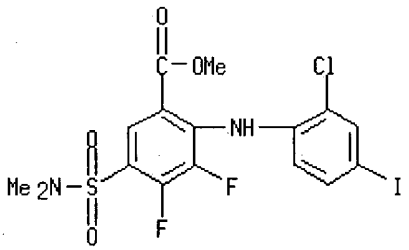
US 2001-272932P	P	20010302
US 2001-278233P	P	20010323
US 2001-329437P	P	20011015
US 2002-91177	A2	20020304

AB The invention provides compns. and methods for isolating ligand-binding polypeptides for a user-specified ligand, and for isolating small mol. ligands for a user-specified target polypeptide using an improved class of hybrid ligand compds. Prepn. of compds., e.g a methotrexate moiety linked by a polyethylene gycol moiety to dexamethasone, is described.

IT **285125-84-0D**, conjugates
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(three hybrid assay system for isolating ligand-binding polypeptides and for isolating small mol. ligands)

RN 285125-84-0 HCAPLUS

CN Benzoic acid, 2-[(2-chloro-4-iodophenyl)amino]-5-[(dimethylamino)sulfonyl]-3,4-difluoro-, methyl ester (9CI) (CA INDEX NAME)



L6 ANSWER 2 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER:	2003:836829 HCAPLUS
DOCUMENT NUMBER:	139:323519
TITLE:	Preparation of imidazoarenes as prostaglandin E2 subtype EP4 receptor antagonists for treatment of IL-6 involved diseases
INVENTOR(S):	Shimojo, Masato; Taniguchi, Kana
PATENT ASSIGNEE(S):	Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.
SOURCE:	PCT Int. Appl., 427 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086371	A2	20031023	WO 2003-IB1310	20030403
WO 2003086371	A3	20040603		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003236260	A1	20031225	US 2003-411491	20030410

PRIORITY APPLN. INFO.: US 2002-372364P P 20020412

OTHER SOURCE(S): MARPAT 139:323519

GI

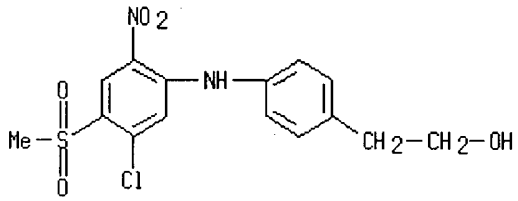
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The present invention relates to the use of a prostaglandin E2 (PGE2) subtype EP4 receptor ligand in the manuf. of a medicament for the treatment of interleukin 6 (IL-6) involved diseases, such as alc. cirrhosis, amyloidosis, atherosclerosis, cardiac disease, sclerosis, and organ transplantation reactions (no data). The invention also relates to the assay which comprises culturing peripheral whole blood with a test compd. and detg. the effect of the compd. on PGE2-induced whole blood cells activation. Three hundred eighty title compds. I [wherein Y1-Y4 = N, CH, CL; R1 = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, pyrrolidinyl, amino, etc.; A = (un)substituted 5-6 membered (un)substituted monocyclic (hetero)arom. ring; B = halo-substituted alkylene, cycloalkylene, alkenylene, alkynylene, alkyleneoxy, etc., optionally substituted with an oxo or alkyl group; W = amino, O, S, bond, etc.; R2 = H, OH, alkyl, alkoxy; Z = 5-12 membered (un)substituted monocyclic or bicyclic (hetero)aryl; L = halo, alkyl, haloalkyl, OH, alkoxy, haloalkoxy, alkylthio, NO2, amino, etc.] were prepd. Thus, cycloaddn. of 2-[4-[(3-amino-4,6-dimethyl-2-pyridinyl)amino]phenyl]ethanol (4-step prepn. given) with propionyl chloride in toluene provided 2-[4-(2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridin-3-yl)phenyl]ethyl propionate, which was treated with aq. LiOH to give the ethanol deriv. (86%). Chlorination (90%) using thionyl chloride, conversion to the azide (85%), and Pd/C catalyzed hydrogenation afforded the amine (94%). Coupling of the amine with p-toluenesulfonyl isocyanate in CH2Cl2 gave II (56%). The latter significantly inhibited IL-6 secretion by PGE2 in ConA-stimulated human peripheral blood mononuclear cells (PBMC).

IT **415913-56-3P**, 2-[4-[5-Chloro-4-(methylsulfonyl)-2-nitroanilino]phenyl]ethanol
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of imidazoarene prostaglandin EP4 receptor antagonists for treatment of IL-6 involved diseases)

RN 415913-56-3 HCAPLUS

CN Benzeneethanol, 4-[[5-chloro-4-(methylsulfonyl)-2-nitrophenyl]amino]- (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2003:719203 HCAPLUS
DOCUMENT NUMBER: 139:245765
TITLE: Nitroso derivatives of diphenylamine and pharmaceutical compositions containing them as drugs useful in the treatment of pathologies characterized by oxidative stress
INVENTOR(S): Lardy, Claude; Festal, Didier; Caputo, Lidia; Guerrier, Daniel
PATENT ASSIGNEE(S): Lipha, Fr.
SOURCE: Fr. Demande, 88 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2836917	A1	20030912	FR 2002-3025	20020311
WO 2003076406	A1	20030918	WO 2003-EP1370	20030212

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: FR 2002-3025 A 20020311
OTHER SOURCE(S): MARPAT 139:245765
GI

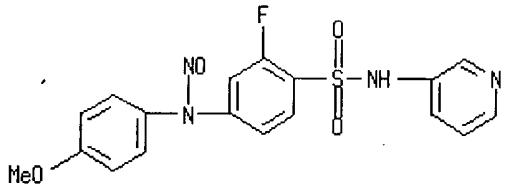
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to compds. I [wherein: each core Ph group is optionally substituted one or more times; n = 0, 1, 2, 3, 4, or 5; W = CO or SO2; Z = H, alkyl, aryl, or arylalkyl; R1 = any monovalent org. group; and pharmaceutically acceptable salts]. I are useful in the treatment of pathologies which are characterized by a condition of oxydative stress, and a deficit of the availability of endothelial nitric oxide (NO). I are generally prepd. via the corresponding diphenylamines. Some of these diphenylamine precursors are also useful as medicinal antioxidants. Both I and the diphenylamines are useful for prepg. medicaments for treating

the metabolic syndrome of insulin resistance. For instance, Pd(0)-catalyzed coupling of 4-bromo-N-(pyridin-3-yl)benzamide with 4-methoxyaniline gave a diphenylamine deriv., 4-[(4-methoxyphenyl)amino]-N-(pyridin-3-yl)benzamide (II) in 55.9% yield. Nitrosation of II with aq. NaNO2 in AcOH at room temp. gave 96.9% nitrosamine III. At 150 μM in a test soln., compds. I spontaneously liberated NO, giving a colorimetric nitrate-nitrite level of 46-108 μM. In a test for antioxidant effect on the cupric ion-induced oxidn. of human LDL in vitro, III had an IC50 of 4.6 μM.

IT **600170-59-0P**, 4-[1-(4-Methoxyphenyl)-2-oxohydrazino]-N-(3-pyridyl)-2-fluorobenzenesulfonamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antioxidant and NO donor; prepn. of N-nitrosodiphenylamines and analogs as antioxidants for treatment of oxidative stress and related pathol.)

RN 600170-59-0 HCAPLUS
CN Benzenesulfonamide, 2-fluoro-4-[(4-methoxyphenyl)nitrosoamino]-N-3-pyridinyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2003:591139 HCAPLUS
DOCUMENT NUMBER: 139:149426
TITLE: Preparation of N-(4-substituted phenyl)-anthranilic acid hydroxamate esters as MAPK/ERK kinase inhibitors useful for treatment of proliferative disorders
INVENTOR(S): Barrett, Stephen Douglas; Kaufman, Michael David; Milbank, Jared Bruce John; Rewcastle, Gordon William; Spicer, Julie Ann; Tecle, Haile
PATENT ASSIGNEE(S): Warner-Lambert Company Llc, USA
SOURCE: PCT Int. Appl., 121 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003062191	A1	20030731	WO 2003-IB211	20030113
WO 2003062191	C1	20031224		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,

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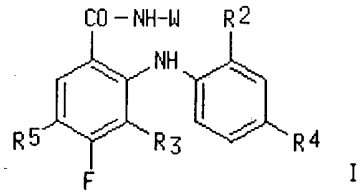
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004006245 A1 20040108 US 2003-349801 20030123
PRIORITY APPLN. INFO.: US 2002-351201P P 20020123
OTHER SOURCE(S): MARPAT 139:149426
GI

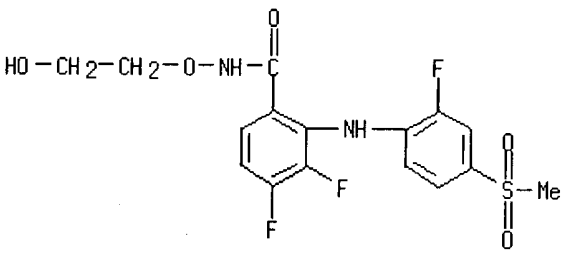


I

AB The present invention relates to oxygenated esters of 4-substituted-phenylamino benzhydroxamic acid derivs. (shown as I; variables defined below; e.g. 2-[(4-ethyl-2-fluorophenyl)amino]-3,4-difluoro-N-(2-hydroxyethoxy)benzamide), pharmaceutical compns. and methods of use thereof. Although the methods of prepn. are not claimed, 33 example prepns. of I are included. IC50 values for cellular inhibition of ERK phosphorylation by 32 examples of I are reported, e.g. 0.00015 μM for 3,4-difluoro-2-(2-fluoro-4-methylanilino)-N-(2-hydroxyethoxy)benzamide. For I: W is HOCH2CH2O, enantiomers of HOCH2CH(OH)CH2O, or OCH(CH2OH)2; R2 is H, Me, F, or Cl; R3 is H or F; R4 is C1-6 alkyl, C2-4 alkenyl, C2-6 alkynyl, C3-6 cycloalkyl, -(CH2)-C3-6 cycloalkyl, -O-(C1-4 alkyl), -S-(C1-2 alkyl), -SO2CH3, -SO2NR6R7, -C≡C-(CH2)nNH2, -C:C(CH2)nOH, -C:C-(CH2)nNH2, -(CH2)mNH2, -(CH2)mNHCH3, -(CH2)mNMe2, -(CH2)mOR8, -(CH2)qCF3, -C≡CCF3, -CH:CHCF3, -CH2CHCF2, or -CH:CF2, wherein the C1-6 alkyl and C2-6 alkynyl are (un)substituted with = 1-3 hydroxy and alkyl; m is 1 to 4; n is 1 to 2; q is 0 to 2; R5 is H or Cl; R6 and R7 are each independently H, Me, or Et; R8 = Me or Et.

IT **568600-03-3P**, 3,4-Difluoro-2-[[2-fluoro-4-(methylsulfonyl)phenyl]amino]-N-(2-hydroxyethoxy)benzamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; prepn. of N-(4-substituted phenyl)-anthranilic acid hydroxamate esters as MAPK/ERK kinase inhibitors useful for treatment of proliferative disorders)

RN 568600-03-3 HCAPLUS
CN Benzamide, 3,4-difluoro-2-[[2-fluoro-4-(methylsulfonyl)phenyl]amino]-N-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

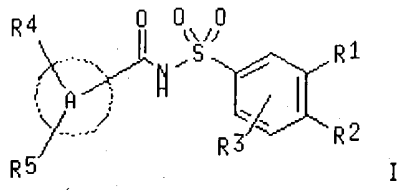
L6 ANSWER 5 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

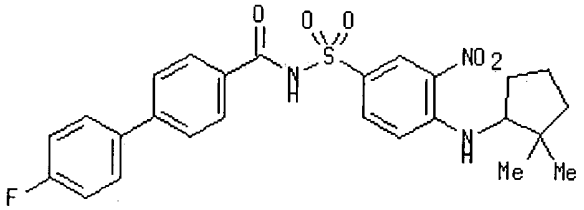
ACCESSION NUMBER: 2002:505411 HCAPLUS
DOCUMENT NUMBER: 137:78769
TITLE: Preparation of N-arylcarbonyl- and heteroarylcarbonyl benzenesulfonamide inhibitors of Bcl-Xl and Bcl-2 as promoters of apoptosis
INVENTOR(S): Augeri, David J.; Baumeister, Steven A.; Bruncko, Milan; Dickman, Daniel A.; Ding, Hong; Dinges, Jurgen; Fesik, Stephen W.; Hajduk, Philip J.; Kunzer, Aaron R.; McClellan, William; Nettesheim, David G.; Oost, Thorsten; Petros, Andrew M.; Rosenberg, Saul H.; Wang, Shen; Thomas, Sheela A.; Wang, Xilu; Wendt, Michael D.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: U.S. Pat. Appl. Publ., 126 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002086887	A1	20020704	US 2001-957276	20010920
US 6720338	B2	20040413		

PRIORITY APPLN. INFO.: US 2000-233866P P 20000920
OTHER SOURCE(S): MARPAT 137:78769
GI



I



II

AB N-aryl- and N-heteroarylcarbonyl benzenesulfonamides I [A = (un)substituted Ph, 5- or 6-membered heterocyclic ring with 1-3 N, O, or S atoms; R1 = alkyl, haloalkyl, NO2, NR6R7; R2, R3 = H, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, etc.; R4 = aryl, arylalkenyl, arylalkoxy, cycloalkenyl, cycloalkyl, halo, heterocyclyl, heterocyclyloxy; R5 = H, alkyl, halo; R6, R7 = H, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, heterocyclyl, etc.; R6R7N = imidazolyl, morpholinyl, piperazinyl, piperidinyl, pyrrolidinyl, etc.] are prepd. Over 500 I are prepd. E.g., N-biphenylcarbonyl benzenesulfonamide II was prepd. by Pd-catalyzed coupling of 4-FC6H4B(OH)2 and 4-BrC6H4CO2Me, hydrolysis of the ester with

LiOH, acylation of 4-chloro-3-nitrobenzenesulfonamide with the resulting acid in the presence of EDCI and DMAP, and nucleophilic arom. substitution of the chlorobenzenesulfonamide with 2,2-dimethylcyclopentylamine. Compds. of the invention inhibit Bcl-Xl with IC50 values between 0.011 μM and 10 μM, and inhibit Bcl-2 with IC50 values between 0.017 μM and 10 μM.

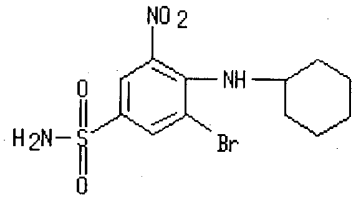
IT **406232-68-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-aryl- and heteroarylcarbonyl benzenesulfonamide inhibitors of Bcl-Xl and Bcl-2 as promoters of apoptosis)

RN 406232-68-6 HCAPLUS

CN Benzenesulfonamide, 3-bromo-4-(cyclohexylamino)-5-nitro- (9CI) (CA INDEX NAME)



L6 ANSWER 6 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:354097 HCAPLUS
DOCUMENT NUMBER: 136:355074
TITLE: Preparation of N-arylcarbonyl- and heteroarylcarbonyl benzenesulfonamide inhibitors of Bcl-Xl and Bcl-2 as promoters of apoptosis
INVENTOR(S): Augeri, David J.; Baumeister, Steven A.; Bruncko, Milan; Dickman, Daniel A.; Ding, Hong; Dinges, Jurgen; Fesik, Stephen W.; Hajduk, Philip J.; Kunzer, Aaron R.; McClellan, William; Nettesheim, David G.; Oost, Thorsten; Petros, Andrew M.; Rosenberg, Saul H.; Shen, Wang; Thomas, Sheela A.; Wang, Xilu; Wendt, Michael D.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 126 pp., Cont.-in-part of U.S. Ser. No. 666,508.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002055631	A1	20020509	US 2001-935581	20010824
WO 2002024636	A2	20020328	WO 2001-US29432	20010920
WO 2002024636	A3	20020926		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

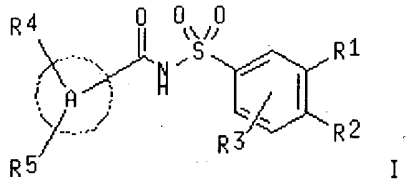
AU 2001091151	A5	20020402	AU 2001-91151	20010920
EP 1318978	A2	20030618	EP 2001-971244	20010920

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:	US 2000-666508	A2	20000920
	US 2001-935581	A	20010824
	WO 2001-US29432	W	20010920

OTHER SOURCE(S): MARPAT 136:355074

GI



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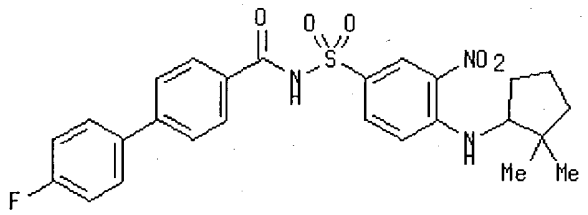


II

AB N-aryl- and N-heteroarylcarbonyl benzenesulfonamides I [A = (un)substituted Ph, 5- or 6-membered heterocyclic ring with 1-3 N, O, or S atoms; R1 = alkyl, haloalkyl, NO2, NR6R7; R2, R3 = H, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, etc.; R4 = aryl, arylalkenyl, arylalkoxy, cycloalkenyl, cycloalkyl, halo, heterocyclyl, heterocyclyloxy; R5 = H, alkyl, halo; R6, R7 = H, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, heterocyclyl, etc.; R6R7N = imidazolyl, morpholinyl, piperazinyl, piperidinyl, pyrrolidinyl, etc.] are prepd. Over 500 I are prepd. E.g., N-biphenylcarbonyl benzenesulfonamide II was prepd. by Pd-catalyzed coupling of 4-FC6H4B(OH)2 and 4-BrC6H4CO2Me, hydrolysis of the ester with LiOH, acylation of 4-chloro-3-nitrobenzenesulfonamide with the resulting acid in the presence of EDCI and DMAP, and nucleophilic arom. substitution of the chlorobenzenesulfonamide with 2,2-dimethylcyclopentylamine. Compds. of the invention inhibit Bcl-Xl with IC50 values between 0.011 μM and 10 μM, and inhibit Bcl-2 with IC50 values between 0.017 μM and 10 μM.

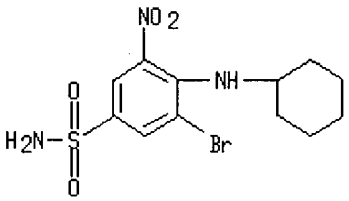
IT **406232-68-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-aryl- and heteroarylcarbonyl benzenesulfonamide inhibitors of Bcl-Xl and Bcl-2 as promoters of apoptosis)

RN 406232-68-6 HCAPLUS

CN Benzenesulfonamide, 3-bromo-4-(cyclohexylamino)-5-nitro- (9CI) (CA INDEX NAME)



L6 ANSWER 7 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:314939 HCAPLUS
DOCUMENT NUMBER: 136:340677
TITLE: Preparation of imidazoarenes as antiinflammatory and analgesic agents.
INVENTOR(S): Nakao, Kazunari; Okumura, Yoshiyuki; Matsumizu, Miyako; Uneo, Naomi; Hashizume, Yoshinobu; Kato, Tomoki; Kawai, Akiyoshi; Miyake, Yoriko; Nukui, Seiji; Shinjyo, Katsuhiro; Taniguchi, Kana
PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.
SOURCE: PCT Int. Appl., 461 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002032900	A2	20020425	WO 2001-IB1940	20011015
WO 2002032900	A3	20020808		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002077329	A1	20020620	US 2001-977761	20011015
US 2002107273	A1	20020808	US 2001-977621	20011015
US 6710054	B2	20040323		
EP 1326864	A2	20030716	EP 2001-978702	20011015
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EE 200300190	A	20031015	EE 2003-190	20011015
BR 2001014704	A	20040225	BR 2001-14704	20011015
JP 2004517054	T2	20040610	JP 2002-536282	20011015
BG 107699	A	20031231	BG 2003-107699	20030403
NO 2003001582	A	20030617	NO 2003-1582	20030408

PRIORITY APPLN. INFO.: US 2000-241825P P 20001019
WO 2001-IB1940 W 20011015

OTHER SOURCE(S): MARPAT 136:340677
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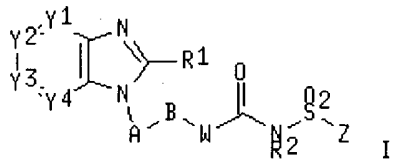


I

AB Title compds. [I; Y1-Y4 = N, CH, CL; R1 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, pyrrolidinyl, amino, etc.; A = (substituted) 5-6 membered monocyclic arom. ring optionally contg. up to 3 heteroatoms selected from O, N, S, etc.; B = halo-substituted alkylene, cycloalklylene, alkenylene, alkynylene, alkyleneoxy, etc., optionally substituted with an oxo group; W = amino, O, S, bond, etc.; R2 = H, OH, alkyl, alkoxy; Z = 5-12 membered (substituted) monocyclic or bicyclic aryl optionally contg. up to 3 heteroatoms selected from O, N and S, etc.; L = halo, alkyl, haloalkyl, OH, alkoxy, haloalkoxy, alkylthio, NO2, amino, etc.], were prepd. as prostaglandin E2 receptor antagonists, preferably as EP4 receptor antagonists. Thus, to 2-[4-(2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridin-3-yl)phenyl]ethylamine (prepn. given) in CH2Cl2 was added p-toluenesulfonyl isocyanate followed by stirring for 3 h to give 56% 2-ethyl-5,7-dimethyl-3-[4-[2-[[[[(4-methylphenyl)sulfonyl]amino]carbonyl]amino]ethyl]phenyl]-3H-imidazo[4,5-b]pyridine. Preferred I inhibited PGE2-induced thermal hyperalgesia in rats with ED50<60 mg/kg.

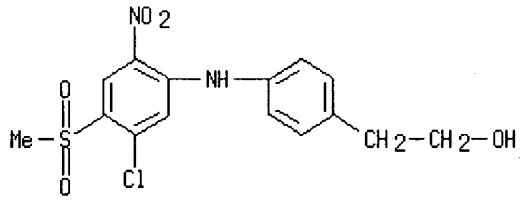
IT **415913-56-3P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of imidazoarene prostaglandin EP4 receptor antagonists as antiinflammatory and analgesic agents)

RN 415913-56-3 HCAPLUS

CN Benzeneethanol, 4-[[5-chloro-4-(methylsulfonyl)-2-nitrophenyl]amino]- (9CI) (CA INDEX NAME)



L6 ANSWER 8 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:314767 HCAPLUS
DOCUMENT NUMBER: 136:340676
TITLE: Preparation of benzimidazole derivatives as prostaglandin EP4 receptor inhibitors to treat rheumatoid arthritis
INVENTOR(S): Audoly, Laurent; Okumura, Takako; Shimojo, Masato
PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.
SOURCE: PCT Int. Appl., 468 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002032422	A2	20020425	WO 2001-IB1942	20011015
WO 2002032422	A3	20020725		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002077329	A1	20020620	US 2001-977761	20011015
US 2002107273	A1	20020808	US 2001-977621	20011015
US 6710054	B2	20040323		
BR 2001014758	A	20030701	BR 2001-14758	20011015
EP 1326606	A2	20030716	EP 2001-974609	20011015

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

EE 200300188	A	20031015	EE 2003-188	20011015
JP 2004511518	T2	20040415	JP 2002-535660	20011015
NO 2003001658	A	20030610	NO 2003-1658	20030410
BG 107732	A	20040130	BG 2003-107732	20030416

PRIORITY APPLN. INFO.: US 2000-241825P P 20001019
WO 2001-IB1942 W 20011015

OTHER SOURCE(S): MARPAT 136:340676

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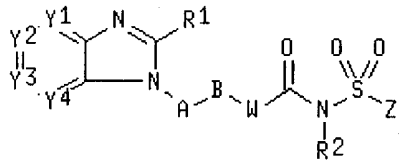


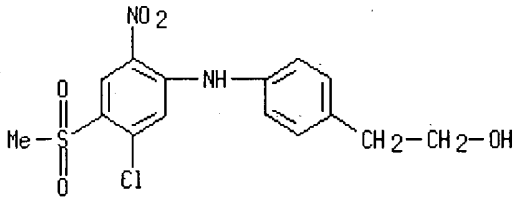
I

AB Benzimidazole derivs. I wherein Y1-Y4 are independently N, CH, alkyl, alkoxy, haloalkyl, halo, substituted alkyl, R1 is H, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, haloalkoxy, heterocycle; R2 is H, alkyl, alkoxy, OH; A is substituted heterocycle arom ring; B is haloalkylene, cycloalkylene, alkenylene, alkynylene, oxyalkylene; W is NH, aminoalkyl, O, S, oxime, covalent bond; Z is monocyclic and bicyclic arom. heterocycle, were prepd. as prostaglandin EP4 receptor inhibitors to treat rheumatoid arthritis of rats and human. Also featured is a method of identifying agents that selectively inhibit EP4 activity in vivo. Thus, 3-(4-{2[({[(3,4-dichlorophenyl)sulfonyl]amino}carbonyl)amino]ethyl}phenyl)-2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridine, hydrochloride was prepd. and tested in vivo as an agent selectively inhibiting EP4 activity or selectively binding EP4; and measuring joint inflammation, joint swelling, joint ankylosis, interleukin (IL)-6, SAA protein, and/or joint mobility.

IT **415913-56-3P**, 2-[4-[5-Chloro-4-(methylsulfonyl)-2-nitroanilino]phenyl]ethanol
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of benzimidazole derivs. as prostaglandin ep receptor inhibitors to treat rheumatoid arthritis)

RN 415913-56-3 HCAPLUS

CN Benzeneethanol, 4-[[5-chloro-4-(methylsulfonyl)-2-nitrophenyl]amino]- (9CI) (CA INDEX NAME)



L6 ANSWER 9 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

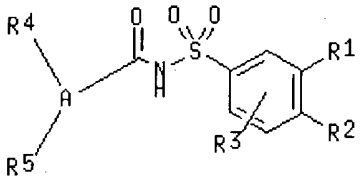
Full Text | Citing References

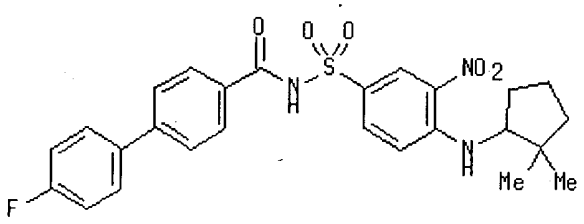
ACCESSION NUMBER: 2002:240717 HCAPLUS
DOCUMENT NUMBER: 136:279215
TITLE: Preparation of N-arylcarbonyl- and heteroarylcarbonyl benzenesulfonamide inhibitors of Bcl-Xl and Bcl-2 as promoters of apoptosis
INVENTOR(S): McClellan, William; Oost, Thorsten; Bruncko, Milan; Wang, Xilu; Augeri, David J.; Baumeister, Steven A.; Dickman, Daniel A.; Ding, Hong; Dinges, Jurgen; Fesik, Stephen W.; Hajduk, Philip J.; Kunzer, Aaron R.; Nettesheim, David G.; Petros, Andrew M.; Rosenberg, Saul H.; Shen, Wang; Thomas, Sheela A.; Wendt, Michael D.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 292 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002024636	A2	20020328	WO 2001-US29432	20010920
WO 2002024636	A3	20020926		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002055631	A1	20020509	US 2001-935581	20010824
AU 2001091151	A5	20020402	AU 2001-91151	20010920
EP 1318978	A2	20030618	EP 2001-971244	20010920
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-666508 A 20000920
US 2001-935581 A 20010824
WO 2001-US29432 W 20010920

OTHER SOURCE(S): MARPAT 136:279215
GI





II

AB N-aryl- and N-heteroarylcarbonyl benzenesulfonamides I [A = (un)substituted Ph, 5- or 6-membered heterocyclic ring with 1-3 N, O, or S atoms; R1 = alkyl, haloalkyl, NO2, NR6R7; R2, R3 = H, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, etc.; R4 = aryl, arylalkenyl, arylalkoxy, cycloalkenyl, cycloalkyl, halo, heterocyclyl, heterocyclyloxy; R5 = H, alkyl, halo; R6, R7 = H, alkenyl, alkoxyalkyl, alkoxycarbonylalkyl, alkyl, heterocyclyl, etc.; R6R7N = imidazolyl, morpholinyl, piperazinyl, piperidinyl, pyrrolidinyl, etc.] are prepd. Over 500 I are prepd. E.g., N-biphenylcarbonyl benzenesulfonamide II was prepd. by Pd-catalyzed coupling of 4-FC6H4B(OH)2 and 4-BrC6H4CO2Me, hydrolysis of the ester with LiOH, acylation of 4-chloro-3-nitrobenzenesulfonamide with the resulting acid in the presence of EDCI and DMAP, and nucleophilic arom. substitution of the chlorobenzenesulfonamide with 2,2-dimethylcyclopentylamine. Compds. of the invention inhibit Bcl-Xl with IC50 values between 0.011 μM and 10 μM, and inhibit Bcl-2 with IC50 values between 0.017 μM and 10 μM.

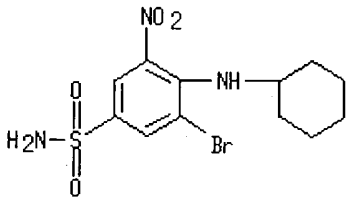
IT **406232-68-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-aryl- and heteroarylcarbonyl benzenesulfonamide inhibitors of Bcl-Xl and Bcl-2 as promoters of apoptosis)

RN 406232-68-6 HCAPLUS

CN Benzenesulfonamide, 3-bromo-4-(cyclohexylamino)-5-nitro- (9CI) (CA INDEX NAME)



L6 ANSWER 10 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2001:63820 HCAPLUS

DOCUMENT NUMBER: 134:131318

TITLE: Preparation of (phenylamino)benzenesulfonamides and (phenylamino)benzamides as MEK inhibitors for the treatment of chronic pain

INVENTOR(S): Bridges, Alexander James; Booth, Richard John; Tecle,

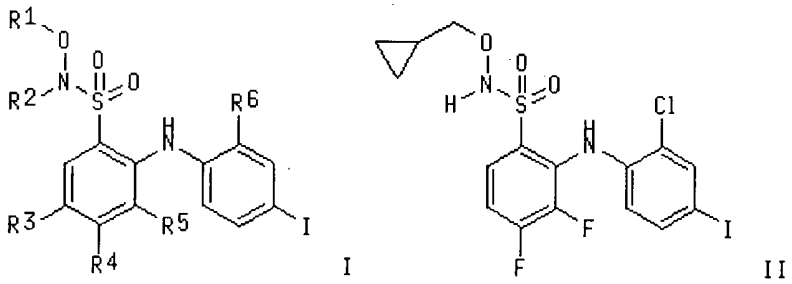
Haile; Scaggs, Yvonne; Kaufman, Michael; Barrett, Stephen Douglas; Dixon, Alistair; Lee, Kevin; Pinnock, Robert Denham
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: PCT Int. Appl., 158 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005393	A2	20010125	WO 2000-US18348	20000705
WO 2001005393	A3	20010510		
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1202724	A2	20020508	EP 2000-945140	20000705
EP 1202724	B1	20031001		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
TR 200200205	T2	20020621	TR 2002-200200205	20000705
AT 250932	E	20031015	AT 2000-945140	20000705
PT 1202724	T	20040227	PT 2000-945140	20000705
ZA 2001009909	A	20030228	ZA 2001-9909	20011130

PRIORITY APPLN. INFO.:

US 1999-144280P	P	19990716
US 1999-144320P	P	19990716
US 1999-144419P	P	19990716
US 1999-144655P	P	19990716
US 1999-144658P	P	19990716
US 1999-144659P	P	19990716
WO 2000-US18348	W	20000705

OTHER SOURCE(S): MARPAT 134:131318
GI



AB The title compds. (I) [wherein R1 = H, (phenyl)alkyl, (phenyl)alkenyl, (phenyl)alkynyl, cycloalkyl, Ph, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl, alkoxylalkyl, phenoxyalkyl, (un)substituted aminoalkyl, piperidinoalkyl, morpholinoalkyl, or alkylpiperazinoalkyl; R2 = H, (cyclo)alkyl, Ph, heterocyclyl, or cycloalkylmethyl; R3 and R4 = independently H, F, NO2, Br, or Cl; R5 = H or F; R6 = H, F, Cl, or Me] were prepd. for the treatment of chronic pain. For example,

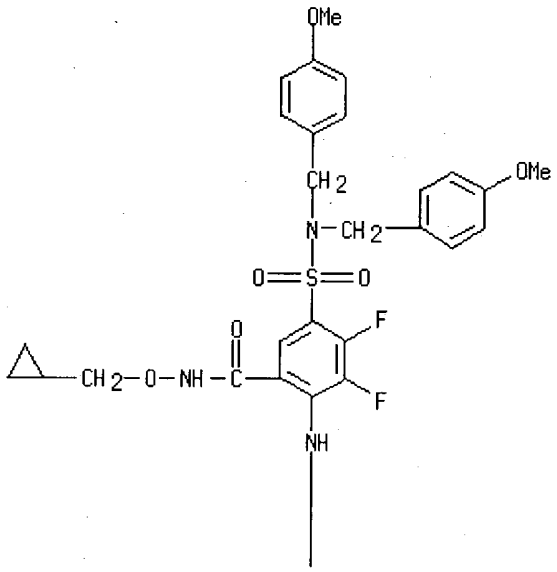
2,3,4-trifluorobenzenesulfonyl chloride was amidated O-cyclopropylmethylhydroxylamine•HCl in CH2Cl2 using diisopropylethylamine (68%). Coupling with 2-chloro-4-iodoaniline in THF in the presence of Li bis(trimethylsilyl)amide afforded PD 297447 (II) in 73% yield. The APK IC50 for PD 297447 was 0.965 μM. Intrathecally administered II (30μg) showed no significant effect on allodynia in the CCI model of neuropathic pain in rats, perhaps due to low affinity or soly. of the compd. However, related MEK inhibitors with higher affinities exerted an antiallodynic effect in CCI-induced neuropathic rats.

IT **285127-11-9P**, 5-Bis(4-methoxybenzyl)sulfamoyl-2-(2-chloro-4-iodophenylamino)-N-cyclopropylmethoxy-3,4-difluorobenzamide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of (phenylamino)benzenesulfonamides and (phenylamino)benzamides as MEK inhibitors for treatment of chronic pain)

RN 285127-11-9 HCAPLUS

CN Benzamide, 5-[[bis[(4-methoxyphenyl)methyl]amino]sulfonyl]-2-[(2-chloro-4-iodophenyl)amino]-N-(cyclopropylmethoxy)-3,4-difluoro- (9CI) (CA INDEX NAME)

PAGE 1-A



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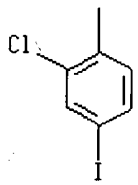

L6 ANSWER 11 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2001:63819 HCAPLUS
DOCUMENT NUMBER: 134:131317

TITLE: Preparation of 2-phenylaminobenzamides and analogs as MEK inhibitors for the treatment of chronic pain

INVENTOR(S): Dixon, Alistair; Lee, Kevin; Pinnock, Robert Denham
PATENT ASSIGNEE(S): Warner-Lambert Company, USA

SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005392	A2	20010125	WO 2000-US18347	20000705
WO 2001005392	A3	20010719		
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
TR 200200082	T2	20020422	TR 2002-200200082	20000705
EP 1202726	A2	20020508	EP 2000-943383	20000705
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
NZ 515567	A	20040326	NZ 2000-515567	20000705
ZA 2001009907	A	20030228	ZA 2001-9907	20011130

PRIORITY APPLN. INFO.: US 1999-144292P P 19990716
WO 2000-US18347 W 20000705

OTHER SOURCE(S): MARPAT 134:131317

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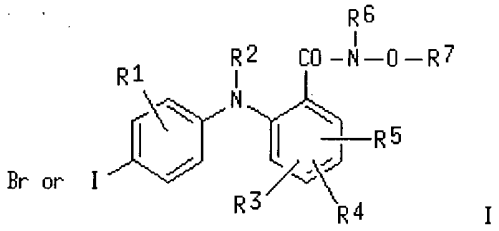

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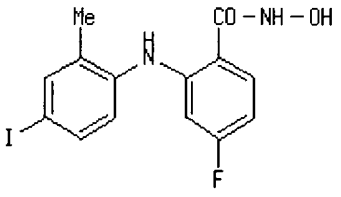


II

AB The title compds. (I) [wherein R1 = H, OH, alkyl, alkoxy, halo, CF3, or CN; R2 = H; R3, R4, and R5 = independently H, OH, halo, CF3, alkyl, alkoxy, NO2, CN, or (O or NH)m(CH2)nR9; R9 = H, OH, CO2H, or NR10R11; m = 0 or 1; n = 0-4; R10 and R11 = independently H, alkyl, or taken together with the N to which they are attached form a heterocycle; R6 = H, (cyclo)alkyl, acyl, aryl, or aralkyl; R7 = H, (cyclo)alkyl, alkenyl, alkynyl, or heterocyclyl] were prepd. using conventional and combinatorial

synthetic methods for the treatment of chronic pain. For example, 2,4-difluorobenzoic acid in THF was added to a soln. of 2-amino-5-iodotoluene and Li diisopropylamide in THF/heptane/EtPh to give 4-fluoro-2-(4-iodo-2-methylphenylamino)benzoic acid (47%). Treatment of the acid with O-(tetrahydro-2H-pyran-2-yl)hydroxylamine and diisopropylethylamine in THF/CH2Cl2 in the presence of PyBOP afforded the O-protected intermediate, which was dissolved in ethanolic HCl to give the title N-hydroxybenzamide (II) in 23% yield. Biol. assays indicated that MEK inhibitors exert an antiallodynic effect in CCI-induced neuropathic rats when administered intrathecally and that the antiallodynic effect correlates with the affinity of the compds.

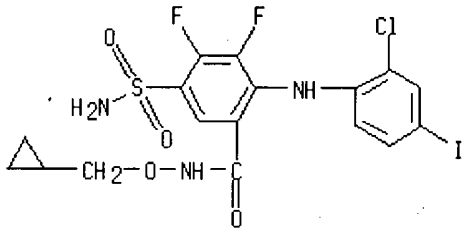
IT 285125-85-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prepn. of 2-phenylaminobenzamide and 2-phenylaminobenzoic acid MEK inhibitors by conventional and combinatorial synthetic methods for treatment of chronic pain)

RN 285125-85-1 HCAPLUS

CN Benzamide, 5-(aminosulfonyl)-2-[(2-chloro-4-iodophenyl)amino]-N-(cyclopropylmethoxy)-3,4-difluoro- (9CI) (CA INDEX NAME)



L6 ANSWER 12 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2001:63818 HCAPLUS
DOCUMENT NUMBER: 134:131540
TITLE: Preparation of (2-heterocyclylphenyl)(4-iodophenyl)amines as MEK inhibitors for the treatment of chronic pain
INVENTOR(S): Barrett, Stephen Douglas; Bridges, Alexander James; Tecle, Haile; Dixon, Alistair; Lee, Kevin; Pinnock, Robert Denham; Zhang, Lu-Yan
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005391	A2	20010125	WO 2000-US18346	20000705
WO 2001005391	A3	20010719		

W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1202732 A2 20020508 EP 2000-943382 20000705

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

TR 200200204 T2 20021121 TR 2002-20020020420000705

ZA 2001009903 A 20030228 ZA 2001-9903 20011130

PRIORITY APPLN. INFO.: US 1999-144403P P 19990716

WO 2000-US18346 W 20000705

OTHER SOURCE(S): MARPAT 134:131540

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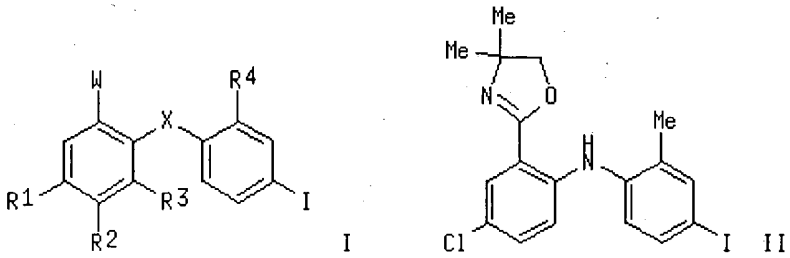


I II

AB The title compds. (I) [wherein W = a variety of (un)substituted heterocycles; X = NRF; RF = H or (un)substituted alkyl; R1 and R2 = independently H, F, NO2, Br, Cl, or taken together with the benzene ring to which they are attached form an (un)substituted (iso)indole, benzofuran, benzothiophene, indazole, benzimidazole, or benzthiazole ring; or R1 = SO2NRGRH; R3 H or F; RG, RH, and R4 = independently H, Cl, or Me; R5 = H or (un)substituted alkyl] were prepd. for the treatment of chronic pain. For example, cycloaddn. of 2-amino-2-methyl-1-propanol with 5-chloro-2-methoxybenzoic acid using SOCl2 in CH2Cl2 gave 2-(5-chloro-2-methoxyphenyl)-4,4-dimethyl-4,5-dihydrooxazole (77%). Treatment with 4-iodo-2-methylaniline in THF in the presence of LDA afforded the diphenylamine (II) in 77% yield. Biol. assays indicated that MEK inhibitors exert an antiallodynic effect in CCI-induced neuropathic rats when administered intrathecally, and that the antiallodynic effect correlates with the affinity of the compds.

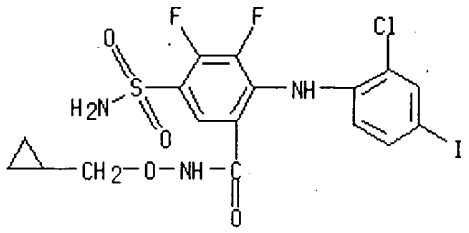
IT **285125-85-1**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prepn. of (2-heterocyclylphenyl)(4-iodophenyl)amines as MEK inhibitors for treatment of chronic pain)

RN 285125-85-1 HCAPLUS

CN Benzamide, 5-(aminosulfonyl)-2-[(2-chloro-4-iodophenyl)amino]-N-(cyclopropylmethoxy)-3,4-difluoro- (9CI) (CA INDEX NAME)



L6 ANSWER 13 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2001:63817 HCAPLUS
DOCUMENT NUMBER: 134:131530
TITLE: Preparation of phenylaminobenzimidazoles and analogs as MEK inhibitors for the treatment of chronic pain
INVENTOR(S): Barrett, Stephen Douglas; Bridges, Alexander James; Tecle, Haile; Dixon, Alistair; Lee, Kevin; Pinnock, Robert Denham
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005390	A2	20010125	WO 2000-US18345	20000705
WO 2001005390	A3	20010517		
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1202731	A2	20020508	EP 2000-947013	20000705
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
ZA 2001009906	A	20030228	ZA 2001-9906	20011130

PRIORITY APPLN. INFO.: US 1999-144418P P 19990716
WO 2000-US18345 W 20000705

OTHER SOURCE(S): MARPAT 134:131530
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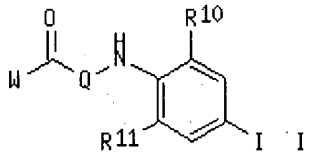

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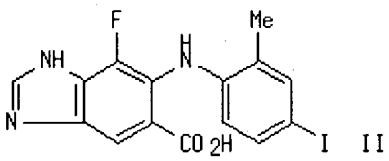


II

AB The title compds. (I) [wherein W = OR1, NR2OR1, NRARB, NR2NRARB, O(CH2)2-4NRARB, or NR2(CH2)2-4NRARB; R1 = H, (phenyl)alkyl, (phenyl)alkenyl, (phenyl)alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl, or (CH2)2-4NRCRD; R2 = H, (cyclo)alkyl, Ph, heterocyclyl, or cycloalkylmethyl; RA = H, (cycloalkyl)alkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkynyl, cycloalkyl, Ph, heterocyclyl, heterocyclylalkyl, aminosulfonylphenyl(alkyl), aminosulfonyl(cyclo)alkyl, aminosulfonylcycloalkylalkyl, or (CH2)2-4NRCRD; RB, RC, and RD = independently H, (cyclo)alkyl, alkenyl, alkynyl, or Ph; or NRCRD = morpholinyl, piperizinyl, pyrrolidinyl, or piperidinyl; Q = a variety of (un)substituted benzo-fused heterocycles; R10 and R11 = independently H, Me, halo, or NO2] were prepd. for the treatment of chronic pain. For example, cycloaddn. of Me 4,5-diamino-3-fluoro-2-(2-

methylphenylamino)benzoate (5-step prepn. given) with formic acid gave Me 7-fluoro-6-(2-methylphenylamino)-1H-benimidazole-5-carboxylate (87%). Iodination using benzyltrimethylammonium dichloroiodinate and ZnCl2 in AcOH (68%) and deesterification using potassium trimethylsilanolate in THF afforded PD 205293 (II) in 9% yield. II displayed an APK IC50 of 14 nM and an IC50 ≥ 10 μM against colon 26 cells. Biol. assays indicated that MEK inhibitors exert an antiallodynic effect in CCI-induced neuropathic rats when administered intrathecally and that the antiallodynic effect correlates with the affinity of the compds.

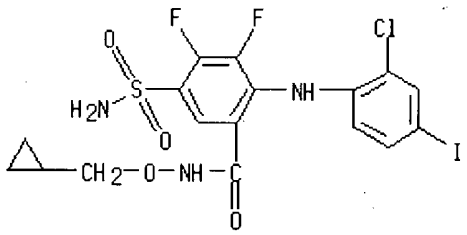
IT **285125-85-1**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prepn. of phenylaminobenzimidazoles and analogs as MEK inhibitors for treatment of chronic pain)

RN 285125-85-1 HCAPLUS

CN Benzamide, 5-(aminosulfonyl)-2-[(2-chloro-4-iodophenyl)amino]-N-(cyclopropylmethoxy)-3,4-difluoro- (9CI) (CA INDEX NAME)



L6 ANSWER 14 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2000:493507 HCAPLUS
DOCUMENT NUMBER: 133:120145
TITLE: Preparation of benzenesulfonamides as MEK inhibitors
INVENTOR(S): Barrett, Stephen Douglas; Tecle, Haile; Booth, Richard John
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000042003	A1	20000720	WO 1999-US30435	19991221
W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, DM, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2000212157	A2	20000802	JP 1999-53632	19990302
EP 1144371	A1	20011017	EP 1999-966496	19991221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9916885	A	20011120	BR 1999-16885	19991221

US 6440966	B1	20020827	US 2001-869639		20010702
US 2003092748	A1	20030515	US 2002-198561		20020718
US 6750217	B2	20040615			
PRIORITY APPLN. INFO.:			US 1999-115874P	P	19990113
			US 1999-122422P	P	19990302
			WO 1999-US30435	W	19991221
			US 2001-869639	A3	20010702

OTHER SOURCE(S): MARPAT 133:120145

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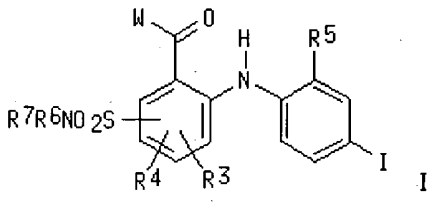

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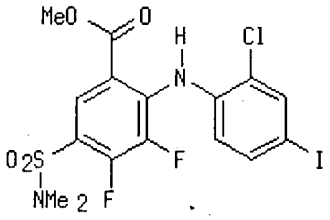


II

AB The title compds. [I; W = OR1, NR2OR1, etc.; R1 = H, alkyl, alkenyl, etc.; R2 = H, Ph, alkyl, etc.; R3 = H, F, Cl, Br, NO2; R4 = H, F; R5 = H, Me, Cl; R6 = H, alkyl, hydroxyethyl, etc.; R7 = H, alkyl, hydroxyethyl, etc.] which are inhibitors of MEK, and are effective in the treatment of proliferative diseases, cancer, stroke, heart failure, xenograft rejection, arthritis, cystic fibrosis, hepatomegaly, cardiomegaly, Alzheimer's disease, complications of diabetes, septic shock, and viral infection, were prepd. E.g, a multi-step synthesis of II which showed IC50 of 222 nM (APK), was given.

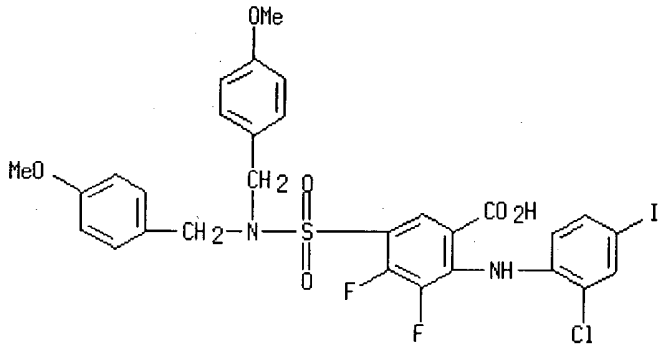
IT **285126-98-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of benzenesulfonamides as MEK inhibitors)

RN 285126-98-9 HCAPLUS

CN Benzoic acid, 5-[[bis[(4-methoxyphenyl)methyl]amino]sulfonyl]-2-[(2-chloro-4-iodophenyl)amino]-3,4-difluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

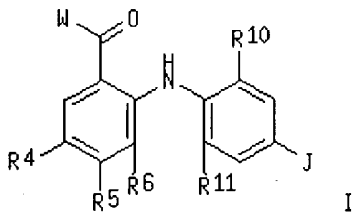
Full Text | Citing References

ACCESSION NUMBER: 2000:493286 HCAPLUS
DOCUMENT NUMBER: 133:104874
TITLE: Preparation of arylaminobenzoates and related compounds as MEK inhibitors.
INVENTOR(S): Tecle, Haile; Barrett, Stephen Douglas
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000041505	A2	20000720	WO 1999-US30491	19991221
WO 2000041505	A3	20001019		
W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, DM, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2000212141	A2	20000802	JP 1999-53610	19990302
EP 1150950	A2	20011107	EP 1999-968160	19991221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9916857	A	20011204	BR 1999-16857	19991221
JP 2002534446	T2	20021015	JP 2000-593128	19991221

PRIORITY APPLN. INFO.:
US 1999-115876P P 19990113
US 1999-122583P P 19990302
WO 1999-US30491 W 19991221

OTHER SOURCE(S): MARPAT 133:104874
GI



I

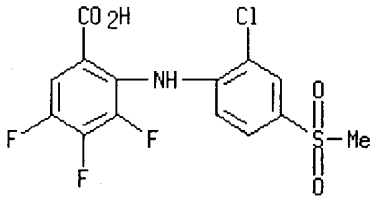
AB Title compds. [I; W = OR1, NR2OR1, NRaRb, etc.; R1 = alkyl, alkenyl, alkynyl, cycloalkyl, Ph, etc.; R2 = H, Ph, alkyl, alkynyl, cycloalkyl, cycloalkylalkyl; Ra = H, alkyl, alkenyl, alkynyl, cycloalkyl, Ph, etc.; Rb = H, alkyl, alkenyl, alkynyl, cycloalkyl, Ph; J = SRc, ORc, SO2Rc, SORc, alkyl, alkenyl, alkynyl, cycloalkyl, etc.; Rc = H, alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl, etc.; R4-R6 = H, Cl, F, Br; R10 = H, alkyl, halo, NO2, aminosulfonyl; R11 = H, halo, NO2], were prepd. for treatment of proliferative disease (no data). Thus, 2-chloro-4-iodoaniline in THF at -78° was treated with LiN(SiMe3)2 in THF followed by addn. of lithiated N-cyclopropylmethoxy-2,3,4-trifluorobenzenesulfonamide (prepn. given) in THF and stirring for 1 h in the absence of cooling to give 2-(2-chloro-4-iodophenylamino)-N-cyclopropylmethoxy-3,4-difluorobenzenesulfonamide.

IT **283601-83-2P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of arylaminobenzoates and related compds. as MEK inhibitors)

RN 283601-83-2 HCAPLUS

CN Benzoic acid, 2-[[2-chloro-4-(methylsulfonyl)phenyl]amino]-3,4,5-trifluoro- (9CI) (CA INDEX NAME)



L6 ANSWER 16 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2000:211453 HCAPLUS
DOCUMENT NUMBER: 132:334422
TITLE: Effect of methanesulfonyl group on the regioselectivity of photocyclization of arylheteroarylamine derivatives
AUTHOR(S): Frolov, A. N.
CORPORATE SOURCE: St. Petersburg State Institute of Technology, St. Petersburg, Russia
SOURCE: Russian Journal of General Chemistry (Translation of Zhurnal Obshchei Khimii) (1999), 69(8), 1254-1261
CODEN: RJGCEK; ISSN: 1070-3632
PUBLISHER: MAIK Nauka/Interperiodica Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:334422

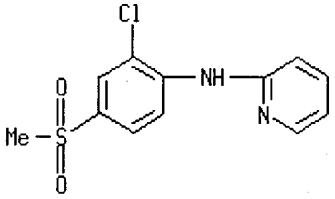
AB Irradn. of arylheteroarylamines with a methanesulfonyl leaving group ortho to the amino group produces nonselective cyclization to form either a C-C

(arylpyridylamines) or a C-N (arylpyrimidylamines) bond. When the methanesulfonyl group is a substituent and chlorine is the leaving group, regioselective photocyclization is obsd. with C-N bond formation. New pyrido- and pyrimido[1,2-a]benzimidazole derivs. with a methanesulfonyl group in the benzene ring, as well as pyrimido[1,2-a]perimidine derivs., are described. The different regioselectivity of photocyclization of these classes of compds. is explained in terms of radical-cation and electrocyclic reaction mechanisms.

IT 267417-75-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(effect of methanesulfonyl group on regioselectivity of photocyclization of arylheteroarylamines)

RN 267417-75-4 HCAPLUS

CN 2-Pyridinamine, N-[2-chloro-4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1999:355837 HCAPLUS
DOCUMENT NUMBER: 131:6563
TITLE: Preparation of reactive dyes containing a halobenzene nucleus
INVENTOR(S): Taylor, John Anthony; Rabjohns, Michael Alan
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 121 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9927019	A2	19990603	WO 1998-GB3406	19981112
WO 9927019	A3	19990715		
W: BR, CN, ID, JP, KR, TR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1029002	A2	20000823	EP 1998-952935	19981112
EP 1029002	B1	20040512		
R: CH, DE, ES, GB, IT, LI, PT				
JP 2001524570	T2	20011204	JP 2000-522167	19981112
EP 1333062	A1	20030806	EP 2003-7521	19981112
R: CH, DE, ES, GB, IT, LI, PT				
CN 1121456	B	20030917	CN 1998-811133	19981112
TW 508365	B	20021101	TW 1998-87121801	19981229
US 6399751	B1	20020604	US 2000-554325	20000724
US 2003191293	A1	20031009	US 2002-117279	20020408

US 2003158395 A1 20030821 US 2002-158879 20020603
PRIORITY APPLN. INFO.: GB 1997-23924 A 19971112
EP 1998-952935 A3 19981112
WO 1998-GB3406 W 19981112
US 2000-554325 A3 20000724
OTHER SOURCE(S): MARPAT 131:6563
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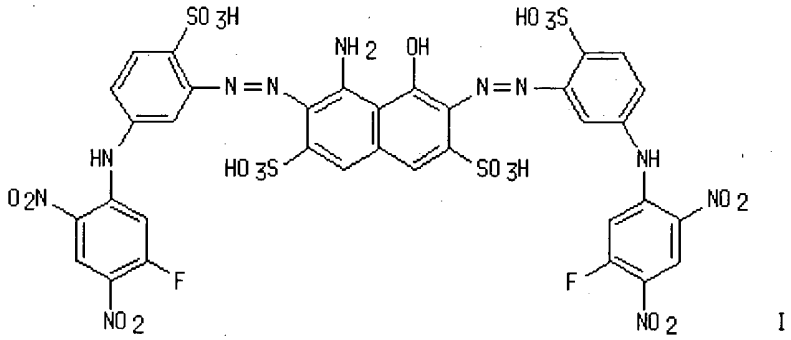


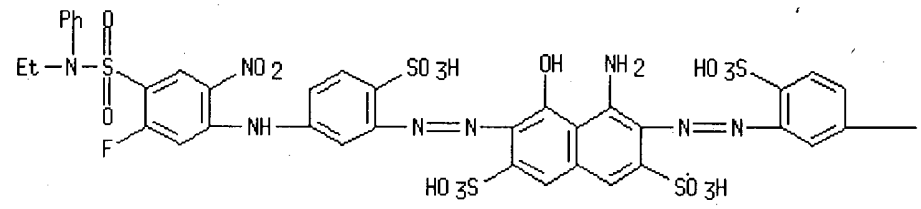
I

AB Reactive dyes having at least one halobenzene nucleus linked to a chromophoric group via an amino linkage and addnl. contg. a second reactive group were prepd. E.g., fluorodinitrophenyl-substituted azo dye I was prepd. The reactive dyes were used to dye textiles and may be used to prep. inks.

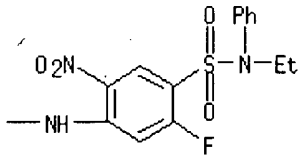
IT 225651-20-7P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(greenish-navy dye; prepn. of reactive dyes contg. a halobenzene nucleus)

RN 225651-20-7 HCAPLUS
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3,6-bis[[5-[[4-[(ethylphenylamino)sulfonyl]-5-fluoro-2-nitrophenyl]amino]-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L6 ANSWER 18 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

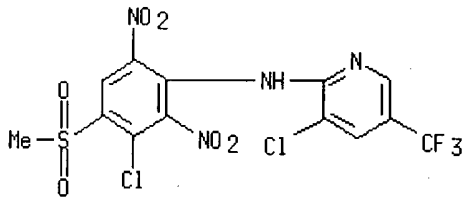
Full Text | Citing References

ACCESSION NUMBER: 1995:793200 HCAPLUS
DOCUMENT NUMBER: 123:278586
TITLE: Quantitative structure-activity relationships of fluazinam and related fungicidal N-phenylpyridinamines. Preventive activity against Botrytis cinerea
AUTHOR(S): Akagi, Toshio; Mitani, Shigeru; Komyoji, Terumasa; Nagatani, Kuniaki
CORPORATE SOURCE: Cent. Res. Inst., Ishihara Sangyo Kaisha Ltd., Kusatsu, 525, Japan
SOURCE: Nippon Noyaku Gakkaishi (1995), 20(3), 279-90
CODEN: NNGADV; ISSN: 0385-1559
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Fluazinam was selected after lead optimization of N-phenylpyridinamine skeleton which was obtained by lead development from acaricidal compd. The preventive activity against B. cinerea of N-phenylpyridinamines was analyzed by the technique of QSAR (ALS method) to elucidate the role of substituents on both of the pyridine and benzene rings, and also to obtain suggestion about the mode of action of this series of compds. Structure-activity relationships on the substituents of the pyridine ring were explained by the combination of elec., steric and hydrophobic parameters, while those on the substituents of the benzene ring were rather complicated. Instead, the MO calcns. (AM1) suggested that the reactivity of the chlorine atom at the meta position of the benzene ring seemed to be correlated with the activity very well. Some mol. properties of several fungicidal compds. with clear mode of actions were calcd. As a result, the LUMO levels of fluazinam was very similar to the characteristically low LUMO levels of sulfhydryl-enzyme inhibitors and uncouplers. The results of this study revealed that the substitution pattern of fluazinam was the most desirable. The suggestion that some reaction of fluazinam with SH- or other groups might be involved in the mode of action of this compd. was obtained.

IT **133230-03-2**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(quant. structure-activity relationships of fluazinam and related compds. against Botrytis cinerea)

RN 133230-03-2 HCAPLUS
CN 2-Pyridinamine, 3-chloro-N-[3-chloro-4-(methylsulfonyl)-2,6-dinitrophenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L6 ANSWER 19 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

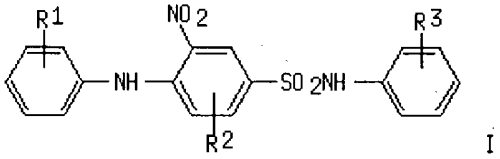
Full Text | Citing References

ACCESSION NUMBER: 1993:49271 HCAPLUS
DOCUMENT NUMBER: 118:49271
TITLE: Yellow-tone color toner compositions containing anilinobenzenesulfonanilides for electrostatography
INVENTOR(S): Koshida, Hitoshi; Aida, Isamu; Tanaka, Hironori
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04247464	A2	19920903	JP 1991-11961	19910201

PRIORITY APPLN. INFO.: JP 1991-11961 19910201
GI

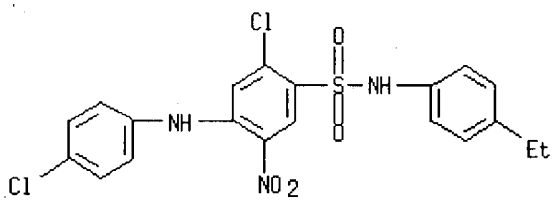


I

AB Yellow-tone color toner compns. contg. the title compds. I (R1-3 = H, alkyl, halo) are claimed. The toner compns. are readily molten and mixed, and provide lemon-yellow light-stable images with fine reproducibility of the d.

IT **145305-19-7**
RL: USES (Uses)
(electrophotog. yellow toner compns. contg., light-stable images from)

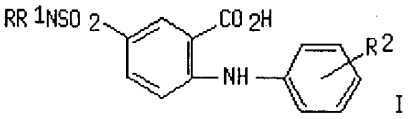
RN 145305-19-7 HCAPLUS
CN Benzenesulfonamide, 2-chloro-4-[(4-chlorophenyl)amino]-N-(4-ethylphenyl)-5-nitro- (9CI) (CA INDEX NAME)



L6 ANSWER 20 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1992:193621 HCAPLUS
DOCUMENT NUMBER: 116:193621
TITLE: Reactivity of derivatives of phenylanthranilic acid. IX. Acid-base properties of sulfamoyl derivatives of phenylanthranilic acid in dioxane-water
AUTHOR(S): Gaidukevich, A. N.; Svechnikova, E. N.; Kolesnik, S. V.; Dynnik, E. V.; Vydashenko, V. N.; Leonova, S. G.
CORPORATE SOURCE: Kharkov Inst. Pharm., Kharkov, USSR
SOURCE: Organic Reactivity (Tartu) (1990), 27(3-4), 152-8
CODEN: ORREDZ; ISSN: 0131-8314
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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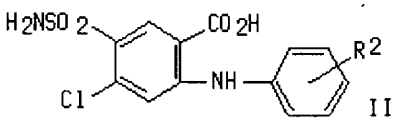


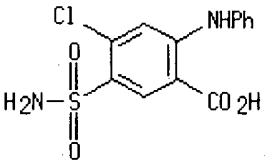
II

AB The pKa values of title compds. I (R = R1 = H, Me, Et; R = H, R1 = Me, Bu; R2 = H, 2-Me or 4-Me or -OMe, etc.) and II (same R2) were detd. in 60% dioxane-H2O, and Hammett correlations were obtained. A single correlation equation, including consts. for substituents in the anthranilic (σ) and N-aryl (σ') portions, was found: pKa = 6.72 - 1.87σ - 0.73σ'.

IT **4793-69-5**
RL: PRP (Properties)
(acidity of, in dioxane-water)

RN 4793-69-5 HCAPLUS

CN Benzoic acid, 5-(aminosulfonyl)-4-chloro-2-(phenylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 21 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1991:626287 HCAPLUS
DOCUMENT NUMBER: 115:226287
TITLE: Quantitative analysis with physicochemical substituent and molecular parameters of uncoupling activity of substituted diarylamines
AUTHOR(S): Guo, Ze Jian; Miyoshi, Hideto; Komyoji, Terumasa; Haga, Takahiro; Fujita, Toshio
CORPORATE SOURCE: Dep. Agric. Chem., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Biochimica et Biophysica Acta (1991), 1059(1), 91-8
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: English

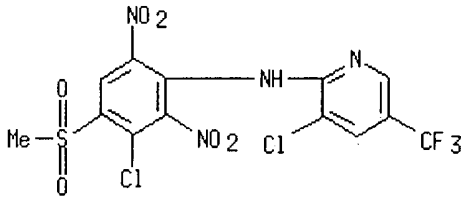
AB Variations in the uncoupling potency of a series of substituted diphenyl- and phenylpyridylamines with rat-liver mitochondria were analyzed quant. by regression anal. by use of two physicochem. parameters, log P(M/W) and log KAm. P(M/W) Is the partition coeff. of compds. for incorporation into mitochondria from the aq. phase and KAm is the acid dissocn. const. in nonionic micellar system. The results of the anal. were similar to those obsd. previously for phenolic uncouplers, showing that the incorporation of compds. into the mitochondrial phase and a certain balance between neutral and ionized forms in the membranous phase were significant factors in governing the uncoupling potency. The findings were in accord with the hypothesis that the acidic uncouplers act primarily by working as protonophores in the inner mitochondrial membrane. In contrast to results obtained with phenols, however, the variations in the steric effect of the ortho substituents in shielding the neg. charged center of the ionized form did not significantly affect variations in the coupling potency of the diarylamines studied here.

IT **133230-03-2**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(respiration by mitochondria of liver uncoupling by, structure in relation to)

RN 133230-03-2 HCAPLUS

CN 2-Pyridinamine, 3-chloro-N-[3-chloro-4-(methylsulfonyl)-2,6-dinitrophenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L6 ANSWER 22 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1991:228268 HCAPLUS

DOCUMENT NUMBER: 114:228268

TITLE: Correlation of the acid dissociation constants of some multisubstituted diphenyl- and phenylpyridylamines

AUTHOR(S): Guo, Ze Jian; Miyoshi, Hideto; Nagatani, Kuniaki; Komyoji, Terumasa; Haga, Takahiro; Fujita, Toshio

CORPORATE SOURCE: Dep. Agric. Chem., Kyoto Univ., Kyoto, 606, Japan

SOURCE: Journal of Organic Chemistry (1991), 56(11), 3692-700
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

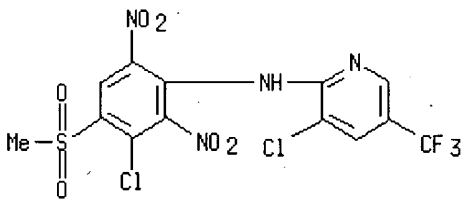
AB The acid dissocn. consts. of diphenyl- and phenylpyridylamines bearing multiple electron-withdrawing substituents were measured in 1:1 ethanol/water. The ionization consts. were correlated quant. by application of Hammett-Taft-type equations and regression anal. The effects of substituents crowded near each other in the vicinity of the NH bridge could be readily sepd. into electronic and steric components. The effects included those that were specific to the proximity of the substituent to the NH bridge and those that influenced the behavior of the aza functional group of the pyridinyl compds. electronically.

IT **133230-03-2**

RL: PRP (Properties)
(acid dissocn. const. of)

RN 133230-03-2 HCAPLUS

CN 2-Pyridinamine, 3-chloro-N-[3-chloro-4-(methylsulfonyl)-2,6-dinitrophenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

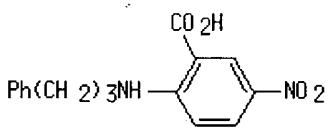


L6 ANSWER 23 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1987:489293 HCAPLUS

DOCUMENT NUMBER: 107:89293
TITLE: Chloride-channel blockers in the thick ascending limb of the loop of Henle. Structure-activity relationship
AUTHOR(S): Wangemann, P.; Wittner, M.; Di Stefano, A.; Englert, H. C.; Lang, H. J.; Schlatter, E.; Greger, R.
CORPORATE SOURCE: Max-Planck-Inst. Biophys., Frankfurt/Main, D-6000, Fed. Rep. Ger.
SOURCE: Pfluegers Archiv (1986), 407(Suppl. 2), S128-S141
CODEN: PFLABK; ISSN: 0031-6768
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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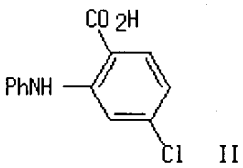
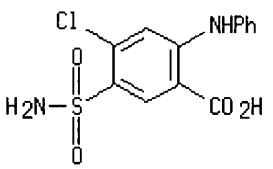


II

AB On the basis of previous findings with diphenylamine-2-carboxylate a search for compds. which possess an even higher affinity for the Cl--channels in the basolateral membrane of the thick ascending limb of the loop of Henle has been conducted. To quantify the inhibitory potency, measurements of the equiv. short circuit current, corresponding to the secondary active transport of Cl- and measurements of the voltage across the basolateral membrane have been performed. A survey of 219 compds. reveals that relatively simple modifications in the structure of diphenylamine-2-carboxylate led to very potent blockers such as 5-nitro-2-(3-phenylpropylamino)benzoate (I) which inhibits the short circuit current half maximally (IC50) at 8.10-8 mol/L. Structure activity studies suggest that these Cl- channel blockers possess several sites of interaction: The neg. charged carboxylate group, the secondary amine group which probably carries a pos. partial charge, and for the very potent agents (e.g. I and 5-chlorodiphenylamine-2-carboxylic acid (II)) an addnl. neg. partial charge at the resp. -Cl or -NO2 substituent. Finally, also an apolar interaction with an cycloalkyl or cycloaryl residue seems to be required, and this site of interaction has a defined spacing from the secondary amino N.

IT **4793-69-5**
RL: BIOL (Biological study)
(chloride channel blocking activity of, structure in relation to)
RN 4793-69-5 HCAPLUS
CN Benzoic acid, 5-(aminosulfonyl)-4-chloro-2-(phenylamino)- (9CI) (CA INDEX NAME)



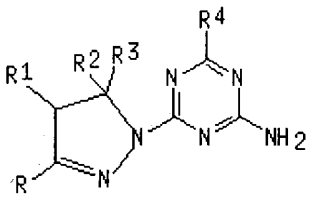
L6 ANSWER 24 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1985:542017 HCAPLUS
DOCUMENT NUMBER: 103:142017
TITLE: 2-Amino-6-(2-pyrazolino)-1,3,5-triazines
INVENTOR(S): Brzozowski, Zdzislaw; Angielski, Stefan; Kozakiewicz, Irena; Rogulski, Jerzy; Pomarnacka-Jankowska, Elzbieta; Kaminski, Zbigniew
PATENT ASSIGNEE(S): Starogardzkie Zaklady Farmaceutyczne "Polfa", Pol.; Akademia Medyczna, Gdansk
SOURCE: Pol., 7 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 123395	B1	19821030	PL 1979-217350	19790724

PRIORITY APPLN. INFO.: PL 1979-217350 19790724
GI



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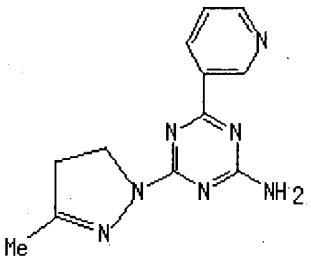
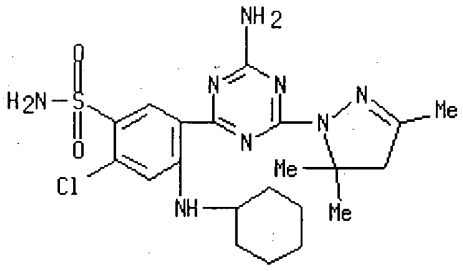


II

AB Title compds. I [R, R1, R2, R3 = H, C1-3 alkyl; R4 = H, C1-3 alkyl, (un)substituted Ph or pyridyl] were prepd. and had antidiabetic activity. Thus, [(3-methyl-2-pyrazolinyl)iminomethyl]guanidine, Et nicotinate, and MeONa in MeOH were refluxed 15 h to give 60% analog II.

IT **80688-03-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as antidiabetic)

RN 80688-03-5 HCAPLUS
CN Benzenesulfonamide, 5-[4-amino-6-(4,5-dihydro-3,5,5-trimethyl-1H-pyrazol-1-yl)-1,3,5-triazin-2-yl]-2-chloro-4-(cyclohexylamino)- (9CI) (CA INDEX NAME)

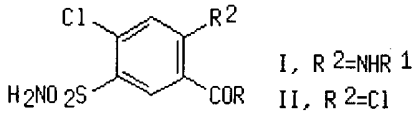


L6 ANSWER 25 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

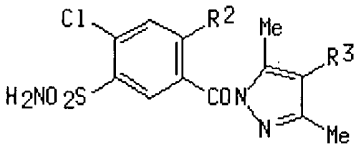
Full Text | Citing References

ACCESSION NUMBER: 1985:166689 HCAPLUS

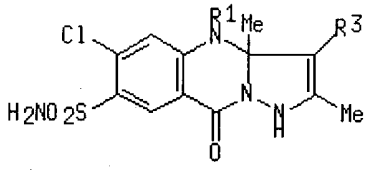
DOCUMENT NUMBER: 102:166689
TITLE: Derivatives of 4-chloro-5-sulfamoylbenzoic acid. VIII. Synthesis and diuretic properties of pyrazolo[3,2-b]quinazoline and 1-benzoylpyrazole derivatives
AUTHOR(S): Pomarnacka, Elzbieta; Angielski, Stefan; Hoppe, Anzelm
CORPORATE SOURCE: Inst. Technol. Anal. Pharm. Prod., Sch. Med., Gdansk, 80-416, Pol.
SOURCE: Acta Poloniae Pharmaceutica (1984), 41(2), 141-51
CODEN: APPHAX; ISSN: 0001-6837
DOCUMENT TYPE: Journal
LANGUAGE: Polish
OTHER SOURCE(S): CASREACT 102:166689
GI



I, R 2=NHR 1
II, R 2=Cl



III, R 2=Cl
V, R 2=NHR 1

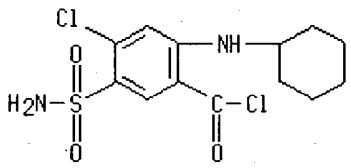


IV

AB 3-Sulfamoylbenzhydrazide derivs. I (R = NHNH2, R1 = Pr, Bu, Me2CHCH2, C6H11, PhCH2, and furfuryl) were prepd. by the reaction of I (R = OMe and OEt, R1 as above) with N2H4·H2O and (or) by the reaction of II (R = NHNH2) with the appropriate R1NH2 (R1 as above). II (R = NHNH2) treated in the presence of Ac2O with AcCHR3Ac (R3 = H, Me, and Et) yielded the corresponding pyrazole derivs. III (R3 as above). III (R3 = H and Me) were also prepd. from II (R = Cl) and 3,5-dimethyl- and 3,4,5-trimethylpyrazole, resp., in the presence of Et3N. When refluxed with PrNH2 and BuNH2 in HOCH2CH2OCH2CH2OMe, III gave I (R = NHPr and NHBu, resp.; R1 = Pr and Bu, resp.). I (R = NHNH2) treated with AcCHR3Ac either in EtOH contg. some AcOH or in DMF acidified with 2N HCl gave 22 pyrazoloquinazolines IV (R1 = PhCH2, R3 = H and Me; R1 = C6H11 and furfuryl, R3 = H, Me, and Et; R1 = Pr and Bu, R3 = H, Me, Et, and Pr; R1 = Me2CHCH2, R3 = H, Me, Et, Pr, allyl, and PhCH2). Alk. hydrolysis of IV (R1 = C6H11, R3 = H) gave I (R = OH, R1 = C6H11). Three pyrazole derivs. V (R1 = C6H11, R3 = H and Me; R1=PhCH2, R3 = Me) were prepd. analogously as III from I (R = Cl, R1 = C6H11 and PhCH2, resp.) in CHCl3 in the presence of Et3N. In preliminary pharmacol. tests, all IV enhanced diuresis and electrolyte elimination in exptl. rats, the magnitude of these effects depending on the substituents R1 and R3. IV (R1 = furfuryl, R3 = Me) with LD50 >12 g/kg on oral administration to mice and diuretic activity exceeding that of hydrochlorothiazide was of particular interest; on i.v. administration to dogs (0.006-0.4 mg/kg) it was comparable to fursemide. A similar biol. activity was also obsd. with IV (R1 = C6H11, R3 = H).

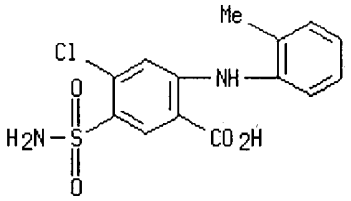
IT **95792-31-7**

RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation by, of methylpyrazole derivs.)
RN 95792-31-7 HCAPLUS
CN Benzoyl chloride, 5-(aminosulfonyl)-4-chloro-2-(cyclohexylamino)- (9CI)
(CA INDEX NAME)



L6 ANSWER 26 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References

ACCESSION NUMBER: 1985:131642 HCAPLUS
DOCUMENT NUMBER: 102:131642
TITLE: Synthesis and biological activity of derivatives of phenylanthranilic acid
AUTHOR(S): Gaidukevich, A. N.; Dinnik, K. V.; Konev, V. F.; Bereznyakova, A. I.; Beletskaya, O. V.
CORPORATE SOURCE: Kharkov Pharm. Inst., Kharkov, USSR
SOURCE: Farmatsevtichnii Zhurnal (Kiev) (1984), (5), 42-5
CODEN: FRZKAP; ISSN: 0367-3057
DOCUMENT TYPE: Journal
LANGUAGE: Ukrainian
OTHER SOURCE(S): CASREACT 102:131642
AB Treating 2,4-Cl2C6H3CO2H with ClSO3H at 130-135° gave 2,4,5-Cl2(ClSO2)C6H2CO2H, which condensed with RNHR1 (R = R1 = H, Me, Et; R = Me, R1 = H) to give 75-83% 2,4,5-Cl2(RR1NSO2)C6H2CO2H (I; same RR1N). I reacted with R2NH2 (R2 = Ph, 2- and 4-tolyl and -MeOC6H4, 3,4-xylyl) at 125-150° in the presence of K2CO3 to give ≤84% yield of 16 corresponding title compds. (II), the IR spectra of which were interpreted. II (R, R1 ≠ H) had fungicidal and antiinflammatory activity.
IT **95454-01-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn., IR spectrum and pharmacol. activity of)
RN 95454-01-6 HCAPLUS
CN Benzoic acid, 5-(aminosulfonyl)-4-chloro-2-[(2-methylphenyl)amino]- (9CI)
(CA INDEX NAME)



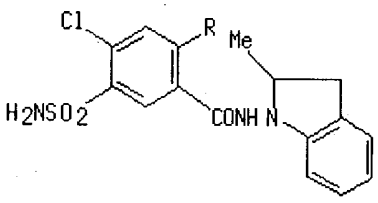
L6 ANSWER 27 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References

ACCESSION NUMBER: 1983:558249 HCAPLUS
DOCUMENT NUMBER: 99:158249
TITLE: Antihypertensive sulfamoylbenzamides
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58124767	A2	19830725	JP 1982-6752	19820121
JP 03060821	B4	19910917		

PRIORITY APPLN. INFO.: JP 1982-6752 19820121
OTHER SOURCE(S): CASREACT 99:158249
GI

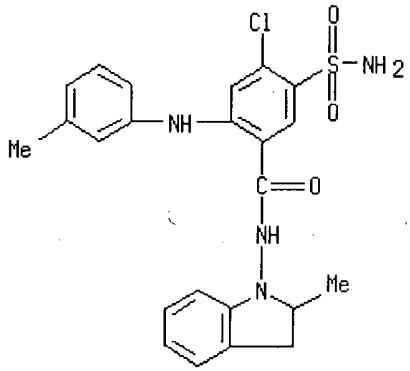


I, R=NR 1R2
II, R=halo

AB I [R1, R2 = H, (substituted) alkyl, NH2, OH, alkoxy, (substituted) phenyl] were prepd. by condensation of II with HNR1R2. Thus, 30 mL a soln. of 2 g II (R = Cl) in ethylcellosolve was heated at 110° for 5 h with introduction of HNMe2 to give 1 g I (R1 = H, R2 = Me). At 30 mg/kg/day p.o. I decreased deoxycorticosterone aceatate/saline-induced hypertension (183-202 mmHg) in rats by 13-21% in 5 days.

IT **87445-65-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and antihypertensive activity of)

RN 87445-65-6 HCAPLUS
CN Benzamide, 5-(aminosulfonyl)-4-chloro-N-(2,3-dihydro-2-methyl-1H-indol-1-yl)-2-[(3-methylphenyl)amino]- (9CI) (CA INDEX NAME)



L6 ANSWER 28 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

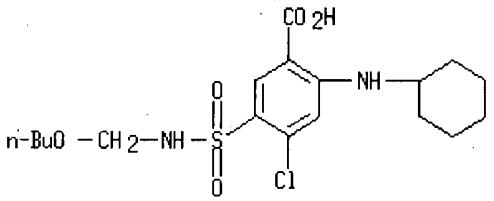
ACCESSION NUMBER: 1983:65112 HCAPLUS
DOCUMENT NUMBER: 98:65112
TITLE: Structure activity correlation for diuretic furosemide

congeners
AUTHOR(S): Shani, J.; Schoenberg, S.; Lien, E. J.; Cherkez, S.; Feifel, M.; Schonberger, C.; Yellin, H.
CORPORATE SOURCE: Sch. Pharm., Hebrew Univ., Jerusalem, Israel
SOURCE: Pharmacology (1983), 26(3), 172-80
CODEN: PHMGBN; ISSN: 0031-7012
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The structure activity correlation of several groups of anthranilic acid derivs. was studied. Fifty-nine compds., most of them possessing the anthranilic acid moiety, were tested for diuretic and saluretic activities. Equations correlating the biol. activities of these compds. with their physicochem. consts. suggest pos. dependence of the diuretic activity on log P (octanol:water partition coeff.). Apparently, within limits, the variation in biol. activity is primarily governed by the lipophilicity of the mol., and further increase in log P value will not enhance this activity.

IT **40532-38-5**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diuretic activity of, structure in relation to)

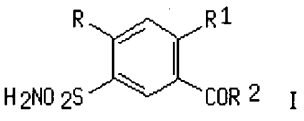
RN 40532-38-5 HCAPLUS
CN Benzoic acid, 5-[[(butoxymethyl)amino]sulfonyl]-4-chloro-2-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 29 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1982:142393 HCAPLUS
DOCUMENT NUMBER: 96:142393
TITLE: Derivatives of 4-chloro-5-sulfamoylbenzoic acid. VII. Synthesis and diuretic activity of some derivatives of 2,4-diamino- and 2-amino-4-chloro-5-sulfamoylbenzamide
AUTHOR(S): Brzozowski, Zdzislaw; Pomarnacka-Jankowska, Elzbieta; Angielski, Stefan
CORPORATE SOURCE: Inst. Technol. Anal. Pharm. Prod., Sch. Med., Gdansk, 80-416, Pol.
SOURCE: Acta Poloniae Pharmaceutica (1981), 38(1), 11-17
CODEN: APPHAX; ISSN: 0001-6837
DOCUMENT TYPE: Journal
LANGUAGE: Polish
OTHER SOURCE(S): CASREACT 96:142393
GI



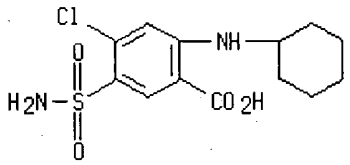
I

AB Benzamide I (R = R1 = Cl, R2 = NH2) was heated at 110° with 10 mols HO(CH2)2NH2 to give 31% I (R = R1 = HOCH2CH2NH). Similarly, I (R = R1 = Cl, R2 = EtO) was treated with R3NH2 [R3 = HO(CH2)n; n = 2, 3] to give a mixt. of I (R = R1 = Cl, R2 = R3NH; R = R1 = R2 = R3NH). I (R = Cl, R1 = cyclohexylamino, R2 = OH) was treated with ClCO2Et followed by refluxing with R3NH2 (R3 = HOCH2CH2, Pr, Me2CH, Bu, Me2CHCH2, PhCH2CH2, 2-MeO, 4-MeOC6H4) to give 42-81% I (R = Cl, R1 = cyclohexylamino, R2 = R3NH). I (R = Cl, R1 = cyclohexylamino, R2 = Me2CHCH2NH) inhibited diuresis in rats.

IT **4793-39-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and amination of)

RN 4793-39-9 HCAPLUS

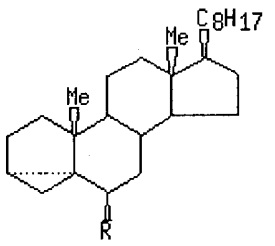
CN Benzoic acid, 5-(aminosulfonyl)-4-chloro-2-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 30 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1982:123100 HCAPLUS
DOCUMENT NUMBER: 96:123100
TITLE: Studies in remote functionalization. (I). Synthesis and spectroscopic studies of 3α, 5α-cyclosteroidal substrates
AUTHOR(S): Lee, Eun; Park, Sang Kyu; Lee, Hee Yoon; Kim, Wan Joo
CORPORATE SOURCE: Coll. Nat. Sci., Seoul Natl. Univ., Seoul, 151, S. Korea
SOURCE: Bulletin of the Korean Chemical Society (1981), 2(3), 105-12
CODEN: BKCSDE; ISSN: 0253-2964
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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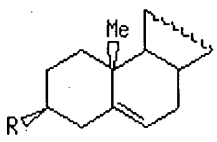


II

AB Solvolysis of cholesterol tosylate in RH [R = HO, alkoxy, PhCH2O, HO(CH2)nO (n = 2, 3), HOCH2CH2S, HSCH2CH2S, PhS, PhO] gave varying amts. of isocholesteryl ethers I and cholesteryl ethers II. Arom. esters of I (R = HOCH2CH2O, HOCH2CH2CH2O, HOCH2CH2S) were prepd. and their

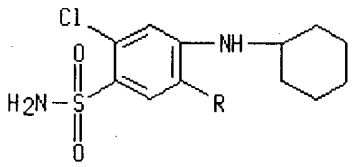
conformations were studied by NMR spectroscopy. The arom. ring in these esters, i.e. I [R = 4-O2NC6H4(CH2)2CO2], approaches the C-18 Me group and the C-17 side chain.

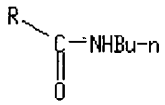
IT **80258-31-7P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and NMR spectrum of)

RN 80258-31-7 HCAPLUS

CN Benzamide, 5-(aminosulfonyl)-N-butyl-4-chloro-2-(cyclohexylamino)- (9CI) (CA INDEX NAME)

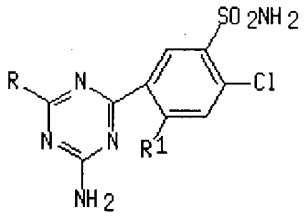




L6 ANSWER 31 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1982:68944 HCAPLUS
DOCUMENT NUMBER: 96:68944
TITLE: Derivatives of diamino-1,3,5-triazine. III. Synthesis and diuretic activity of some 2,4-diamino-6-(sulfamoylphenyl)-1,3,5-triazine derivatives
AUTHOR(S): Brzozowski, Zdzislaw; Kaminski, Zbigniew; Angielski, Stefan
CORPORATE SOURCE: Inst. Technol. Anal. Pharm. Prod., Sch. Med., Gdansk, 80-416, Pol.
SOURCE: Acta Poloniae Pharmaceutica (1981), 38(1), 1-9
CODEN: APPHAX; ISSN: 0001-6837
DOCUMENT TYPE: Journal
LANGUAGE: Polish
OTHER SOURCE(S): CASREACT 96:68944
GI



I

AB A series of 6 title derivs. [I, R = 1-piperidinyl, R1 = BuNH, C6H11NH, 1-pyrrolidinyl, 4-morpholinyl, HO(CH2)2NH, and HO(CH2)3NH] and 10 I (R = 3,5,5-trimethyl-2-pyrazolin-1-yl, R1 as above and also PhCH2NH, Ph(CH2)2NH, furfurylamino, and 1-piperidinyl) was prepd. in >80% crude yields by treating I (R1 = Cl) with the amine under reflux but not over 130°. I (R1 = Cl) were obtained in <45% yields in the reaction of Et 2,4-dichloro-5-sulfamoylbenzoate with H2NC(:NH)NHC(:NH)R.HCl in

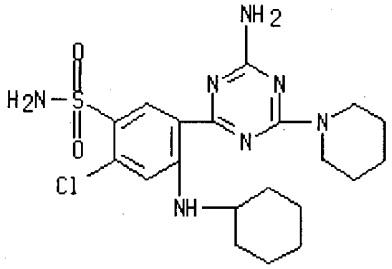
MeONa-MeOH. The position of the amino substituent in the arom. moiety of I was confirmed by an independent synthesis. The diuretic activity of I was tested in rats; I (R = 1-piperidinyl, R1 = C6H11NH), with diuretic activity equal to 92% of that of hydrochlorothiadiazine, was the most effective compd.

IT **80687-97-4P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and diuretic activity of)

RN 80687-97-4 HCAPLUS

CN Benzenesulfonamide, 5-[4-amino-6-(1-piperidinyl)-1,3,5-triazin-2-yl]-2-chloro-4-(cyclohexylamino)- (9CI) (CA INDEX NAME)

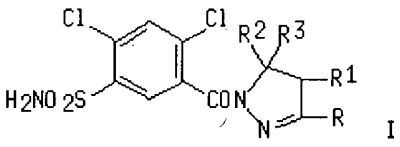


L6 ANSWER 32 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER:	1981:480807 HCAPLUS
DOCUMENT NUMBER:	95:80807
TITLE:	Derivatives of 4-chloro-5-sulfamoylbenzoic acid. VI. Synthesis of certain 1-(sulfamoylbenzoyl)-2-pyrazoline derivatives with expected diuretic activity
AUTHOR(S):	Brzozowski, Zdzislaw; Pomarnacka, Elzbieta
CORPORATE SOURCE:	Inst. Technol. Anal. Pharm. Prod., Sch. Med., Gdansk, 80-416, Pol.
SOURCE:	Acta Poloniae Pharmaceutica (1980), 37(4), 373-80 CODEN: APPHAX; ISSN: 0001-6837
DOCUMENT TYPE:	Journal
LANGUAGE:	Polish

GI



I

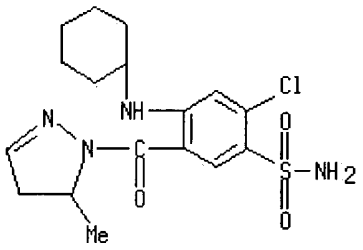
AB 2,4-Dichloro-5-sulfamoylbenzoic acid treated with SOCl2 and then with 3-methyl-, 5-methyl-, 3,5,5-trimethyl-, 3,5-diethyl-5-methyl-, and 4-methyl-5-ethyl-2-pyrazoline gave the appropriately substituted I in 66-95% yields. I heated (120-5°, 3-4 h) with 10 mol PhCH2NH2 gave products in which both Cl atoms were exchanged for the amine residue. A similar reaction with C6H11NH2 and pyrrolidine resulted in the exchange of only the 2-Cl atom. In the reaction with furfurylamine, phenethylamine, morpholine, and piperidine either one or both Cl atoms in I were exchanged, depending on the pyrazoline substitution. Twenty-two amino derivs. of I prepd. in this way revealed moderate diuretic activity. I (R

= Me, R1 = R2 = R3 = H) revealed 93% of the diuretic activity and 46% of the electrolyte excretion capacity of hydrochlorothiazide.

IT **78545-77-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 78545-77-4 HCAPLUS

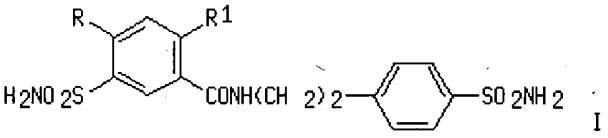
CN 1H-Pyrazole, 1-[5-(aminosulfonyl)-4-chloro-2-(cyclohexylamino)benzoyl]-4,5-dihydro-5-methyl- (9CI) (CA INDEX NAME)



L6 ANSWER 33 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1980:567833 HCAPLUS
DOCUMENT NUMBER: 93:167833
TITLE: Synthesis of 4-2-(2,4-dichloro-5-sulfamoylbenzamido)-ethyl benzenesulfonamide and its reactions with some amines
AUTHOR(S): Kozakiewicz, Irena
CORPORATE SOURCE: Inst. Technol. Anal. Pharm. Prod., Sch. Med., Gdansk, 80-416, Pol.
SOURCE: Acta Poloniae Pharmaceutica (1979), 36(5), 523-8
CODEN: APPHAX; ISSN: 0001-6837
DOCUMENT TYPE: Journal
LANGUAGE: Polish
OTHER SOURCE(S): CASREACT 93:167833
GI



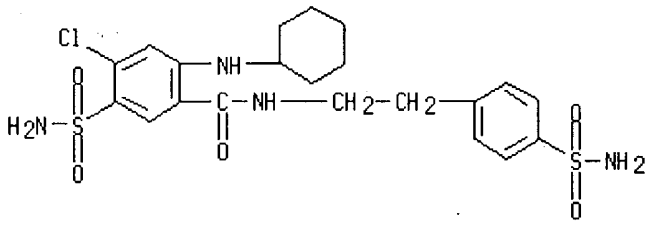
I

AB A Schotten-Baumann acylation of 4-H2NCH2CH2C6H4SO2NH2 with 2,4-dichloro-5-sulfamoylbenzoyl chloride in acetone gave 60% I, which, treated with amines, yielded 34-55% of 6 new I (R = R1 = 1-piperidinyl, 4-morpholinyl, PhCH2NH; R = Cl, R1 = C6H11NH, 2-furfurylamino, BuNH). Some I showed weak diuretic and hypoglycemic effects in rats.

IT **75136-46-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 75136-46-8 HCAPLUS

CN Benzamide, 5-(aminosulfonyl)-N-[2-[4-(aminosulfonyl)phenyl]ethyl]-4-chloro-2-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 34 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

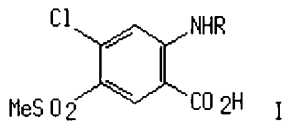
Full Text | Citing References

ACCESSION NUMBER: 1976:432644 HCAPLUS
DOCUMENT NUMBER: 85:32644
TITLE: 3-Amino-5-sulfonylbenzoic acids
INVENTOR(S): Cragoe, Edward J., Jr.; Woltersdorf, Otto W., Jr.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: U.S., 14 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3953476	A	19760427	US 1974-465949	19740501
US 3780027	A	19731218	US 1970-33061	19700429

PRIORITY APPLN. INFO.: US 1970-33061 19700429
US 1971-212745 19711227

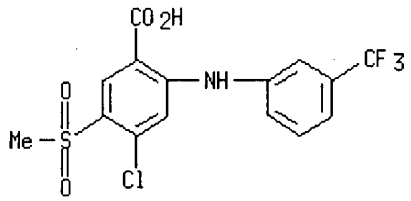
GI



AB Aminobenzoic acids, e.g. I (R = NHCH2C6H4CF3-4, 3-pyridylmethylamino, 2-furylmethyl, CH2Ph), effective as diuretic and antihypertensive agents at dose levels of 0.01-0.3 g, were prepd. by amidation of the 2-halo analog or by alkylation of the free amino compd. Thus, furfurylamine reacted with 2,4-dichloro-5-(methylsulfonyl)benzoic acid at 125° under N for 3 hr to give 98% I (R = 2-furylmethyl).

IT **51521-83-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 51521-83-6 HCAPLUS
CN Benzoic acid, 4-chloro-5-(methylsulfonyl)-2-[[3-(trifluoromethyl)phenyl]amino]- (9CI) (CA INDEX NAME)



L6 ANSWER 35 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1974:520696 HCAPLUS
DOCUMENT NUMBER: 81:120696
TITLE: Antihypertensive 4,6-diamino-1,3-benzenedisulfonamides
INVENTOR(S): Sturm, Karl; Starey, Franz
PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
SOURCE: Ger. Offen., 22 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2239846	A1	19740214	DE 1972-2239846	19720812
NL 7310889	A	19740214	NL 1973-10889	19730807
CH 583217	A	19761231	CH 1973-11479	19730808
DD 107928	C	19740820	DD 1973-172801	19730809
AU 7359061	A1	19750213	AU 1973-59061	19730809
US 3876632	A	19750408	US 1973-386863	19730809
DD 112900	C	19750512	DD 1973-180690	19730809
ES 417700	A1	19760216	ES 1973-417700	19730809
FR 2195453	A1	19740308	FR 1973-29445	19730810
ZA 7305475	A	19741030	ZA 1973-5475	19730810
AT 7307033	A	19760415	AT 1973-7033	19730810
AT 333768	B	19761210		
JP 49132090	A2	19741218	JP 1973-89685	19730811
BE 803539	A1	19740213	BE 1973-134517	19730813
GB 1437023	A	19760526	GB 1973-38246	19730813

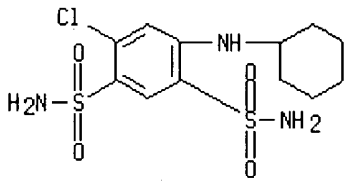
PRIORITY APPLN. INFO.: DE 1972-2239846 19720812
DE 1973-2334562 19730707

GI For diagram(s), see printed CA Issue.

AB Twenty-three sulfonamides I (R = Me, Et, Pr, Bu, or PhCH2; R1, R2 = H or Me; R3 = e.g., H, PhCH2, PhCH2CH2, 2-MeOC6H4CH2 piperonyl, or cyclohexyl, R4 = H or Me; or NR3R4 = 4-methylpiperazinyl, morpholino, or 1-pyrrolidinyl) and(or) their hydrochlorides, useful as antihypertensives (no data), were prepd. either by reaction of II (X = Cl, X1 = substituted piperazinyl) with R3R4NH or of II (X = R3R4N, X1 = Cl) with the corresponding piperazine. Correction CA 80:121004q.

IT **14558-87-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylpiperazine)

RN 14558-87-3 HCAPLUS
CN 1,3-Benzenedisulfonamide, 4-chloro-6-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 36 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1974:145809 HCAPLUS
DOCUMENT NUMBER: 80:145809
TITLE: Anthranilic acid derivatives
INVENTOR(S): Cragoe, Edward J., Jr.; Woltersdorf, Otto W., Jr.
PATENT ASSIGNEE(S): Merck and Co., Inc.
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3780027	A	19731218	US 1970-33061	19700429
US 3953476	A	19760427	US 1974-465949	19740501

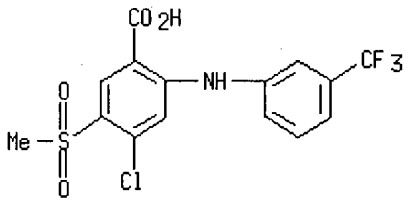
PRIORITY APPLN. INFO.: US 1970-33061 19700429
US 1971-212745 19711227

GI For diagram(s), see printed CA Issue.

AB Anthranilic acids (I; R = Cl, Me; R1 = Me, Et, Me2CH, CF3, 4-ClC6H4CH2; R2 = furfuryl, Bu, PhCH2, m-, p-F3CC6H4CH2, p-ClC6H4CH2, p-FC6H4CH2, 2-pyridylmethyl, n = 1,2) and aminobenzoic acids (II; R3 = furfuryl, benzyl, butyl; n = 1,2), useful as diuretics, were prepd. Thus, I (R = Cl, R1 = Me, R2 = furfuryl, n = 2) (III) was prepd. from sulfonyl chloride (IV) by treatment with Na2SO3, followed by methylation of the resulting 2,4-dichloro-5-carboxy-benzenesulfinic acid to give 2,4-dichloro-5-methylsulfonylbenzoic acid which when treated with furfurylamine gave III. About twenty-six I and three II were prepd.

IT **51521-83-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 51521-83-6 HCAPLUS
CN Benzoic acid, 4-chloro-5-(methylsulfonyl)-2-[[3-(trifluoromethyl)phenyl]amino]- (9CI) (CA INDEX NAME)



L6 ANSWER 37 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1974:121004 HCAPLUS
DOCUMENT NUMBER: 80:121004
TITLE: Antihypertensive 4,6-diamino-1,3-benzenedisulfonamides
INVENTOR(S): Sturm, Karl; Starey, Franz
PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
SOURCE: Ger. Offen., 22 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

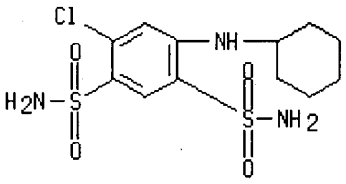
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 223946		19740214	DE 1972-2239846	19720812

AB Amines are reacted with chlorobenzenedisulfonamides to prepare 4,6-diamino-1,3-benzenedisulfonamides as hypertensives.

IT **14558-87-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with amines)

RN 14558-87-3 HCAPLUS

CN 1,3-Benzenedisulfonamide, 4-chloro-6-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 38 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1973:110917 HCAPLUS
DOCUMENT NUMBER: 78:110917
TITLE: 4-Chloro-5-sulfamoylanthranilic acid derivatives
INVENTOR(S): Schoenberg, Shlomo; Jellin, Haim
PATENT ASSIGNEE(S): Teva Middle East Pharmaceutical and Chemical Works Ltd.
SOURCE: Ger. Offen., 32 ppp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

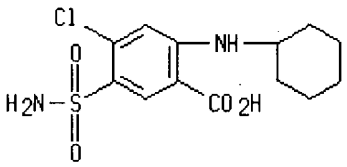
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2235400	A1	19730201	DE 1972-2235400	19720719
DE 2235400	B2	19770630		
IL 37345	A1	19740314	IL 1971-37345	19710720
IL 38812	A1	19750210	IL 1972-38812	19720222
ZA 7204623	A	19730328	ZA 1972-4623	19720705
AU 7244308	A1	19740221	AU 1972-44308	19720706
CA 1024988	A1	19780124	CA 1972-146492	19720706
SE 384675	B	19760517	SE 1972-9055	19720707
FR 2146249	A1	19730302	FR 1972-25075	19720711
US 3860582	A	19750114	US 1972-271314	19720712
ES 404965	A1	19760401	ES 1972-404965	19720717
DD 99572	Z	19730820	DD 1972-164494	19720718
CS 183664	P	19780731	CS 1972-5097	19720718
BE 786432	A1	19721116	BE 1972-52054	19720719
AT 315827	B	19740610	AT 1972-6231	19720719
SU 455533	D	19741230	SU 1972-1814329	19720719
CH 566972	A	19750930	CH 1972-10788	19720719
NO 133892	B	19760405	NO 1972-2578	19720719
DK 133503	B	19760531	DK 1972-3584	19720719
NL 7210054	A	19730123	NL 1972-10054	19720720
JP 51006660	B4	19760301	JP 1972-73330	19720720

RO 60274 P 19760915 RO 1972-71689 19720720
PRIORITY APPLN. INFO.: IL 1971-37345 19710720
IL 1972-38812 19720222

AB Twenty-three title compds., 2,4,5,-RNHCl(R1QCH2NHSO2)c6H2CO2H [I; Q = O, S; R = Bu, cyclohexyl, PhCH2, furfuryl; R1 = C1-7 normal alkyl, CHMe2, CH2CH:CH2, CH2C≡CH, CH2CH2OH, CH2CH2OEt, CH2CH(OH)CH2OH, CH2Ph, cyclohexyl, furfuryl], useful as diuretics and saluretics, were prepd. by reaction of 2,4,5-RNHCl(H2NSO2)C6H2CO2H (II) with HCHO and R1QH or via I (Q = O, R1 = Me, Bu) with R1 exchange on heating with excess R1QH. Thus, 16.5 g II (R = furfuryl), 7.5 ml 37% HCHO, and 50 ml BuOH were heated 3 hr at 75-80° to give 15.1 g I (Q = O, R = furfuryl, R1 = Bu) (III). Heating I (Q = O, R = furfuryl, R1 = Me) and 60 ml BuOH 3 hr at 75-80° gave 19 g III. III had LD50 9.8 g/kg orally in rats as compared with 4 mg/kg for common diuretic furosemide.

IT **4793-39-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkoxymethylation of)

RN 4793-39-9 HCAPLUS
CN Benzoic acid, 5-(aminosulfonyl)-4-chloro-2-(cyclohexylamino)- (9CI) (CA INDEX NAME)



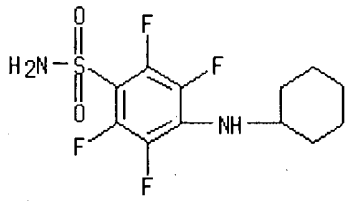
L6 ANSWER 39 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1970:35832 HCAPLUS
DOCUMENT NUMBER: 72:35832
TITLE: Detection of sulfonamido groups
AUTHOR(S): Bradshaw, L. R. A.
CORPORATE SOURCE: Sch. Med., Leeds, UK
SOURCE: Journal of Chromatography (1969), 44(2), 422-4
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB All compds. with unsubstituted sulfonamido groups gave a yellow color with DAB reagent [1.5 g p-(dimethylamino)benzaldehyde dissolved in 75 ml EtOH and 25 ml NH4OH, sp. gr. 0.88] on silica gel N, alumina G, or paper. The spots were more stable on paper than on thin layers. Also sulfathiazole and sulfapyridine (sulfonamido group is substituted w ith a heterocyclic ring) gave a yellow color. DAC reagent [1.5 g p-(dimethylamino)cinnamaldehyde in 75 ml EtOH an d 25 ml NH4OH] gave red spots on an orange background with the same compds. Detection limits and Rf values on silica gel N plates with 1:1 PhMe-EtOAc as solvent were: 4-(ethylsulfonyl)benzenesulfonamide 0.5, 0.25; 4-(ethylsulfonyl)naphthalene-I-sulfonamide 0.2, 0.44; 4-(methylsulfonyl)naphthalene-I-sulfonamide 0.2, 0.40; 4-(ethylthio)naphthalene-I-sulfonamide 0.2, 0.59; naphthalene-I-sulfonamide 0.4, 0.57; p-toluenesulfonamide 1.0, 0.55; N4-acetylsulfanilamide 1.0, 0.06; 4-piperonyl-2,3,5,6-tetrafluorobenzenesulfonamide 0.3, 0.77; 4-(cyclohexylamino)-2,3,5,6-tetrafluorobenzenesulfonamide 0.3, 0.75; 1-oxo-3-(3-sulfamoyl-4-chlorophenyl)-3-hydroxyisoindoline[chlorthalidone (Hygroton)] 0.5, 0.15; p-(tetrahydro-2H-1,2-thiazin-2-yl)-benzenesulfonamide dioxide 0.4 μg, 0.23.

IT **4408-99-5**
RL: ANT (Analyte); ANST (Analytical study)
(detection of, color reaction in)
RN 4408-99-5 HCAPLUS
CN Sulfanilamide, N4-cyclohexyl-2,3,5,6-tetrafluoro- (7CI, 8CI) (CA INDEX NAME)



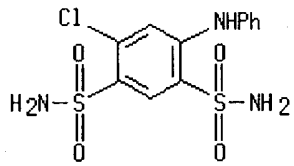
L6 ANSWER 40 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References

ACCESSION NUMBER: 1969:67909 HCAPLUS
DOCUMENT NUMBER: 70:67909
TITLE: Disulfamoylaniline
INVENTOR(S): Nitta, Yoshihiro; Shindo, Minoru
PATENT ASSIGNEE(S): Chugai Pharmaceutical Co., Ltd.
SOURCE: Jpn. Tokkyo Koho, 1 p.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 43016740	B4	19680715	JP	19640806

AB Manuf. of 5-chloro-2,4-disulfamoylaniline (I), useful as a diuretic, by the reaction of 5-chloroaniline-2,4-disulfonyl chloride (II) with (NH4)2CO3 or NH4HCO3 in dichloroethane or tetrachloroethane (III) is described. Thus, 10 g. (NH4)2CO3 is added to a mixt. of 10 g. II and 20 ml. III, the mixt. stirred 30 min. and heated 2 hrs., and 100 ml. H2O added to give 75% I, m. 253-4°.

IT **21525-49-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 21525-49-5 HCAPLUS
CN m-Benzenedisulfonamide, 4-anilino-6-chloro- (7CI, 8CI) (CA INDEX NAME)



L6 ANSWER 41 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References

ACCESSION NUMBER: 1967:421675 HCAPLUS
DOCUMENT NUMBER: 67:21675
TITLE: Preparation of substituted anilines

PATENT ASSIGNEE(S): Merck and Co., Inc.
SOURCE: Neth. Appl., 13 pp.
CODEN: NAXXAN
DOCUMENT TYPE: Patent
LANGUAGE: Dutch
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6608180		19661227	NL	19660613
FR 1483222			FR	

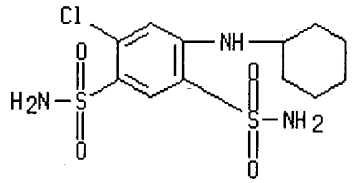
GI For diagram(s), see printed CA Issue.

AB N-Substituted derivs. of 2,4-disulfamoylaniline (I) are useful as diuretics. Thus, the N,N-dimethyl-5-chloro deriv. of I was prepd. from 3 g. 1,3-dichloro-4,6-disulfamoylbenzene and 3.5 g. 25% Me2NH in 60 ml. EtOH and 5 ml. H2O. The mixt. was heated in a sealed tube at 60° for 48 hrs. Then the solvent was removed in vacuo. The solid residue was purified by recrystn. from alc.-H2O mixt. The product has the structure II (X = Cl, R = R1 = Me) and has m.p. 240-1°. Other II prepd. were (X, R, R1, and m.p. given): Me, H, NH2, 219-20°; Cl, H, (CH2)3Ph, 183-5°; Cl, H, CH2CH2OH, 205-7°; Cl, H, CH2CH(OH)Me, 184-7°; Me, H, CH2CHMePh, 162-4°; Cl, H, CH2CH2Ph, 219-21°; Cl, H, NH2, 245-6°; Cl, H, CHMeCH2Ph, 254-5°; Me, H, CH2CHMePh, 162-4°; Cl, H, CH2CHMePh, 161-4°; Cl, H, p-ClC6H4CH2CH2, 236-8°; Cl, H, o-ClC6H4CH2CH2, 240-2°; Cl, H, CH2Ph, 211-13°; Cl, H, CHMePh, 217-19°; Cl, H, n-C8H17, 186.5-8.5°; Cl, H, C6H11, 223-5°; and Cl, H, CH2CH2C6H11, 193-5°.

IT **14558-87-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 14558-87-3 HCAPLUS

CN 1,3-Benzenedisulfonamide, 4-chloro-6-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 42 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1966:43634 HCAPLUS
DOCUMENT NUMBER: 64:43634
ORIGINAL REFERENCE NO.: 64:8112e-h,8113a-h,8114a-h,8115a-c
TITLE: Chemistry of furosemide. I. Syntheses of 5-sulfamoylanthranilic acid derivatives
AUTHOR(S): Sturm, Karl; Siedel, Walter; Weyer, Rudi; Ruschig, Heinrich
CORPORATE SOURCE: Farbwerke Hoechst A.-G., Frankfurt/M., Germany
SOURCE: Chemische Berichte (1966), 99(1), 328-44
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 64:43634

GI For diagram(s), see printed CA Issue.

AB 2,4-Dihalo-5-sulfamoylbenzoic acids and their functional derivs. reacted at higher temp. with primary and secondary amines, NH3, and N2H4 with the exchange of 1 halogen atom by a basic group. Some of the condensation products, particularly 4-chloro-5-sulfamoyl-N-(2-furylmethyl)anthranilic acid (furosemide) (I), exhibited a high saluretic and diuretic activity. 2,4-Cl2C6H3CO2H (40 g.) added at room temp. with stirring to 120 cc. ClSO3H, heated rapidly to 155° stirred 2 hrs. at 155°, cooled, and added dropwise to 1 kg. ice, and the moist, yellowish 2,4,5-Cl2(ClO2S)C6H2CO2H (II) [dried, m. 167-75°, 184° (CHCl3-petr. ether)] added in portions with stirring and cooling to 400 cc. concd. HCl, kept overnight, and acidified with HCl to pH 2 yielded 39 g. III (R = R' = H, X = Y = Cl) (IV), m. 233° (H2O). II with 400 cc. 10% aq. MeNH2 gave similarly 34 g. III (R = Me, R' = H, X = Y = Cl) (V), m. 200° (50% EtOH), and with 400 cc. 15% aq. Me2NH yielded 39 g. III (R = R' = Me, X = Y = Cl), m. 182° (aq. EtOH). 2,4-H2NClC6H3CO2Et (100 g.) and 300 cc. 5N HCl heated 10 min. on a steam bath, cooled to 0° treated with 35 g. NaNO2, filtered, and treated 1 hr. at 0° with 200 g. 60% HBF4 yielded 116 g. [5,2-Cl(EtO2C)C6H3N2]BF4, decomp. 147°, which fused over a free flame until the BF3 evolution ceased gave crude 4,2-ClFC6H3CO2Et; this refluxed 1 hr. with 40 g. KOH in 200 cc. 50% EtOH and acidified with 2N HCl yielded 48 g. 4,2-ClFC6H3CO2H (VI), m. 203-4° (30% EtOH). VI (35 g.) treated successively with ClSO3H and NH4OH gave 26g. III (R = R' = H, X = Cl, Y = F) (VII), m. 242-3° (80% EtOH). 4,2-H2NClC6H3CO2Et (100 g.) was converted via the [3,4-Cl(EtO2C)C5H3N2]BF4, decomp. 125°, and 2,4-ClFC6H3CO2H, m. 180-1°, to 27 g. (crude) III (R = R' = H, X = F, Y = Cl) (VIII), m. 246° (H2O). IV (27 g.) refluxed 1 hr. with 35 cc. SOCl2 and evapd., and the residue dissolved in 100 cc. MeOH, basified dropwise with cooling with Et3N, and warmed to room temp. yielded 21.6 g. Me ester of IV, m. 202° (80% EtOH). Similarly was prepd. the Et ester of IV, 77%, m. 116° (EtOH). IV (27 g.) treated with SOCl2, and the crude acid chloride stirred into 200 cc. concd. NH4OH, concd. to half-vol., and adjusted to pH 4.0 gave 16 g. amide (IX) of IV, m. 208-10° (80% EtOH). The acid chloride from a similar run treated with 100 cc. 40% aq. EtNH2 gave 21 g. ethylamide (X) of IV, m. 214° (EtOH). A similar run with 40 cc. BuNH2 in 100 cc. 80% tetrahydrofuran (THF) gave 23 g. butylamide (XI) of IV, m. 180° (90% EtOH). VIII (25.3 g.) in 250 cc. MeOH treated with 1.05 equiv. CH2N2Et2O and kept briefly at room temp. yielded 23.5 g. Me ester of VIII, m. 163-4°. 2,4-Br2C6H3CO2H (56 g.) treated successively with ClSO3H and NH4OH yielded 36 g. III (R = R' = H, X = Y = Br) (XII), m. 243° (aq. HCONMe2). The appropriate III heated with 3-10 equivs. amine with or without solvent heated to a predetd. temp. (runs at temps. above the b.p. of the solvent were performed in an autoclave under N), and the mixt. poured into dil. HCl gave the corresponding XIII. VI (25.3 g.) in 50 g. furfurylamine (XIV) heated 2 hrs. at 95°, dild. with 500 cc. H2O, and acidified at 0° with AcOH gave 28 g. I, decomp. 208° (aq. EtOH). IV (50 g.) and 100 g. XIV heated 4 hrs. at 130° and stirred into 1 l. cold 10% AcOH gave 26 g. I, decomp. 205° (above 245° with blackening). I (1.0 g.) in 10 cc. N NaOH heated 1 hr. on the steam bath and acidified with AcOH was recovered unchanged. I (3.3 g.) and 50 cc. N HCl refluxed 1 hr. gave 0.4 g. III(R = R' = H, X = Cl, Y = NH2), decomp. 265° (aq. EtOH). I (66.2 g.) in 600 cc. THF treated with 41.2 g. dicyclohexylcarbodiimide and kept 1 day at room temp. in the dark, and the crude product extd. with 800 cc. boiling EtOH left cryst. anhydride of I and gave 11 g. N-[4-chloro-5-sulfamoyl-2-(2-furylmethylamino)benzoyl]-N,N'-dicyclohexylurea (XV), m. 163-5°. The insol. anhydride dissolved in 200 cc. warm HCONMe2, filtered, dild. with 200 cc. H2O in portions, and

kept 3 hrs. at room temp. gave 38 g. pure, pale yellow anhydride (XVI) of I, decomp. 183-5°. XVI (7.0 g.) in 70 cc. 2N NaOH kept 2 hrs. at room temp. and adjusted with 2N HCl to pH 2 yielded 4.8 g. cryst. solid, presumably XVII, decomp. above 210° with blackening. XVI (1 g.) and 10 cc. 20% NH4OH stirred 15 min. at 80° gave the amide (XVIII) of I, m. 217° (aq. HCONMe2); the aq. filtrate acidified yielded I. Me ester (XIX) (6.9 g.) of I in 50 cc. dioxane heated at 90° with 3.0 g. LiAlH4 gave 2.8 g. pale yellow 4-chloro-5-sulfamoyl-2-(2-furylmethylamino)benzyl alc., m. 157° (H2O). I (25 g.), 25 cc. Ac2O, and 100 cc. C5H5N heated 1 hr. on the steam bath, dild. with 500 cc. H2O, and acidified with 3N HCl to pH 3.0 gave 24.2 g. diacetyl deriv. of I, decomp. 205-6° (EtOH). I (16.5 g.) and 7.6 cc. Et3N in 100 cc. dry THF treated at -5° with stirring with 5.2 cc. ClCO2Et, stirred 5 min. at 0°, and poured into 100 cc. cold, concd. NH4OH yielded 2.4 g. XVIII, decomp. 223° (aq. HCONMe2). XVIII (4.0 g.) in 40 cc. N NaOH refluxed 1 hr., dild. with H2O, and adjusted with AcOH to pH 8.0 gave 1.9 g. I, decomp. 204-5°. XI (9.8 g.) and 20 cc. XIV heated 3 hrs. on the steam bath gave 8.5 g. butylamide of I, m. 180-1° (EtOH). XVI (6.5 g.) in 30 cc. THF treated 0.5 hr. at room temp. with 30 cc. PhCH2NH2 gave 3.9 g. benzylamide of I, m. 195-7° with yellowing (EtOH). Similarly was prepd. 1.3 g. N,N-pentamethylenehydrazide of I, m. 196-7° (70% EtOH), from 3.0 g. N,N-pentamethylenehydrazine. H2NCH2CO2Et (3.0 g.) with XVI gave 2.2 g. N-carbethoxymethylamide of I, m. 176° (EtOH), which treated 1 hr. at 25° with 15 cc. N NaOH and adjusted with N HCl to pH 3 yielded 1.7 g. N-carboxymethylamide of I, decomp. 203°. I (33 g.) in 100 cc. THF treated 5 min. with about 200 cc. CH2N2-Et2O yielded 25 g. XIX, m. 184-6°. IV (8.9 g.) in 25 cc. XIV heated 1 hr. at 90° and treated with 200 cc. 10% AcOH yielded 10.6 g. (crude) Et ester (XX) of I, m. 165-7° (EtOH). XX (0.1 g.) in 2 cc. 2N NaOH heated 10 min. at 70° and treated with AcOH gave I. IV (8.9 g.) and 25 cc. XIV heated 2 hrs. at 115° and poured into dil. AcOH, and the ppt. (4.6 g.), m. 134-6° warmed briefly with 30 cc. 2N NaOH at 60-70° and adjusted with AcOH to pH 5 yielded 2.5 g. 4-(2-furylmethylamino)-5-sulfamoyl-N-(2-furylmethyl)-anthranilic acid, decomp. 217° (EtOH). XVIII (3.3 g.), 40 cc. EtOH, 2.0 cc. N NaOH, and 1.2 g. 30/% aq. CH2O refluxed 0.5 hr. gave 2.3 g. 7-chloro-6-sulfamoyl-1-(2-furylmethyl)-4-oxo-1,2,3,4-tetrahydroquinazoline, decomp. 245° (aq.HCONMe2). XII (18 g.) and 36 g. XIV heated 2 hrs. at 125° gave 3.4 g. XIII (R = R' = R'' = H, R''' = 2-furylmethyl, X = Br), decomp. 216° (EtOH). VII (8.9 g.) and 20 cc. PhCH2NH2 heated 1.5 hrs. on a steam bath and poured into 250 cc. 10% AcOH, and the ppt. repptd. from 250 cc. N NaHCO3 with 2N HCl yielded 11.8 g. XIII (R = R' = R'' = H, R''' = PhCH2, X = Cl)(XXI), decomp. 244° (EtOH). IV (27 g.) and 42 cc. PhCH2NH2 in MeOCH2CH2OH refluxed 3 hrs. yielded 16 g. XXI, decomp. 244-5° (EtOH). Similarly were prepd. the XIII (X = Cl) listed in the 1st table. XII (36 g.) and PhCH2NH2 gave similarly during 3 hrs. 19 g. XIII (R = R' = R'' = H, R''' = PhCH2, X = Br), decomp. 247° (50% EtOH). R, R', R'', R''', m.p., % yield, reflux time (hrs.); H, Me, H, PhCH2, 238°, 70, 3; Me, Me, H, PhCH2, 206°, 27, 3; H, H, H, o-MeOC6H4CH2, 220°, 27, 4; H, H, H, p-MeC6H4CH2, 230-1°, 35, 4; H, H, Me, PhCH2, 202° (decompn.), 42, 2; H, H, H, 2-thenylmethyl, 201° (decompn.), 87, 3; H, H, H, iso-Bu, 236°, 46, 3; H, H, H, MeO(CH2)3, 204°, 35, 3; XXI (68.2 g.) with dicyclohexylcarbodiimide yielded 41 g. pale yellow anhydride of XXI, decomp. 207° (repptd. from HCONMe2 with H2O). XXI (34.1 g.) in 100 cc. dioxane treated dropwise with stirring at 80° with 20.0 cc. SOCl2, stirred 15 min. at 80°, and dild. with 300 cc. petr. ether, and the resulting acid chloride added in portions with stirring and cooling to 150 cc. THF and 200 cc. concd. NH4OH yielded 23.0 g. amide of

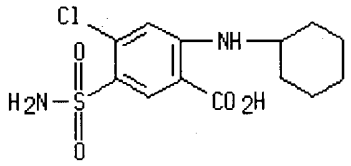
XXI, m. 224° (HCONMe2-H2O). X (18.0 g.) in 40 cc. PhCH2NH2 heated 2 hrs. at 110° and poured into 200 cc. 2N HCl yielded the ethylamide of XXI, m. 251-2° (HCONMe2-H2O). XXI (3.4 g.) condensed with CH2O gave 3.0 g. 7-chloro-6-sulfamoyl-1-benzyl-4-oxo-1,2,3,4-tetrahydroquinazoline (XXII), m. 244-5° (decompn.) (HCONMe2-H2O). XIII (3.0 g.) in 60 cc. HCONMe2 hydrogenated under ambient conditions 10 min. over Pd black gave 1.9 g. 7-chloro-6-sulfamoyl-1,2,3,4-tetrahydroquinazoline, m. 256-8° (decompn.). XXI (10 g.) in 200 cc. MeOH satd. a room temp. with dry HCl and kept overnight gave 5.2 g. Me ester of XXI, m. 188° (aq. HCONMe2). Me ester (26.7 g.) of VI and 100 g. (PhCH2)2NH heated 3 hrs. on a steam bath and stirred into 1 l. N AcOH, and the ppt. heated 15 min. at 100° with 500 cc. 0.5N NaOH gave 36.6 g. XIII (R = R' = H, R'' = R''' = PhCH2, X = Cl), decomp. 206°. IV (5.4 g.) and 8 g. MePhCHNH2 in (CH2OH)2 heated 3 hrs. at 150° yielded 0.5 g. XIII (R = R' = R'' = H, R''' = MePhCH, X = Cl), m. 191-3° (aq. EtOH). IV (10.8 g.) and 25 cc. PhCH2CH2NH2 in (MeOCH2CH2)2O refluxed 2 hrs. and acidified with HCl gave 12.2 g. XIII (R = R' = R'' = H, R''' = PhCH2CH2, X = Cl), decompg. 215° (50% EtOH); method A. IV (10 g.) and 30 cc. PhNH2 refluxed 12 hrs. and acidified with 200 cc. 2N HCl gave 5.7 g. XIII (R = R' = R'' = H, R''' = Ph, X = Cl), decomp. 245° (40% MeOH); method B. IV (27 g.) and 200 cc. 10% aq. MeNH2 heated 5 hrs. at 125-30° yielded 14 g. XIII (R = R' = R'' = H, R''' = Me, X = Cl), m. 264° (decompn.) (35% EtOH); method C. IV (10.8 g.) and 16 cc. piperidine in BuOCH2CH2OH refluxed 3 hrs. gave 10.4 g. (crude) 4-chloro-5-sulfamoyl-N,N-pentamethylenanthranilic acid, decomp. 224° (50% MeOH); method D. Similarly were prepd. the XIII listed in the 2nd table. VI (5.1 g.) and 6.3 g. 1-C10H7CH2NH2 in 15 cc. C5H5N refluxed 2 hrs., dild. with H2O, and acidified with HCl to pH 3 gave 6.3 g. XIII (R = R' = R'' = H, R''' = 1-C10H7CH2, X = Cl), decomp. 222-3° (90% EtOH). Amide (XXV) (5.8 g.) of XXIII, m. 232-3° (aq. HCONMe2) in 300 cc. AcOH treated dropwise at 50° with 1.02 cc. Br in 30 cc. AcOH and dild. with 600 cc. H2O yielded 5.3 g. dibromide of XXV, decomp. 193° (80% EtOH). XXIV (20 g.) in 60 cc. 5N NaOH heated 2 hrs. on the steam bath and adjusted with dil. HCl to pH 7 gave 12.7 g. XIII (R = R' = R'' = H, R''' = CH2CH2NH2, X = Cl), decomp. 269°. IV (10.8 g.) and 7.5 g. 80% N2H4 refluxed 2 hrs. in 20 cc. MeOCH2CH2OH and poured into 200 cc. H2O gave 6.2 g. pale yellow XIII (R = R' = R'' = H, R''' = NH2, X = Cl) (XXVI), decomp. 290° (aq. HCONMe2). XXVI (1.5 g.) recrystd. from boiling N HCl and then H2O gave 1.0 g. 6-chloro-3-oxo-5-sulfamoylindazoline, decomp. 290°. VIII (8.9 g.) in 20 cc. PhCH2NH2 heated 3 hrs. on a steam bath gave 11.5 g. 2,4,5-Cl(PhCH2NH) (H2NO2S)C6H2CO2H (XXVII), decomp. 232° (EtOH). IX (16.-2 g.) and 16.2 g. PhCH2NH2 in 60 cc. MeOCH2CH2OH refluxed 3 hrs. and poured into 300 cc. 5% AcOH, and the pptd. isomer mixt. (18.8 g,), m. 195-205% extd. twice with 250 cc. 90% boiling EtOH gave 1.6 g. amide (XXVIII) of XXVII, m. 260-2° (aq. HCONMe2). XXVIII (3.4 g.), 1.0 cc. 30% aq. CH2O, 20 cc. EtOH, 20 cc. (MeOCH2CH22)2O, and 10 cc. 0.2N NaOH heated 1 hr. on a steam bath yielded 2.7 g. 6-chloro-7-carbamoyl-4-benzyl-2,3-dihydro-4H-1,2,4-benzothiadiazine 1,1-dioxide, m. 244° (aq. HCONMe2). R, R', R'', R''', X, m.p., % yield (method), reaction time (hrs.); , H, H, H, Me, Cl, 242-4° (decompn.), 66, (C), 2; H, H, H, cyclohexylmethyl, Cl, 213°, -- (A), 3; H, H, H, 2-tetrahydrofurylmethyl, Cl, 228° (decompn.), -- (A), 3; H, H, H, cyclohexyl, Cl, 248-9° (decompn.), 40 (A), 3; H, H, H, C8H17, Cl 211°, 43 (A), 3; H, H, H, CH2:CHCH2 (XXIII), Cl, 218° (decompn.), 71 (C), 2; H, H, Et, Et, Cl, 214°, 50 (C), 5; H, H, H, EtSCH2CH2, Cl, 192-3°, 42 (A), 3; H, H, H, CH2CH2OH, Cl, 246° (decompn.), 48 (B), 2; H, H, H, CH2CH2NHAc (XXIV), Cl, 249° (decompn.), 57 (D), 3; H, H, H, H, Cl, 270-2° (decompn.), 83 (C), 3; VIII (4.0 g.) in 12 cc. XIV heated 2 hrs. on a

steam bath, poured into 120 cc. 5% AcOH, and adjusted with HCl to pH 3 gave 3.45 g. III (R = R' = H, X = 2-furylmethylamino, Y = Cl) (XIX), decomp. 201-2° with blackening (50% EtOH). XXIX (10 g.) in 50 cc. anhyd. HCO2H refluxed 2 hrs. gave 6.9 g. XXX, decomp. 336-8°. XXX (10 g.) in 120 cc. N NaHCO3 treated at room temp. with 4.0 g. NaBH4 and kept 1 hr. at room temp. gave 6.9 g. 2,3-dihydro deriv. of XXX, decomp. 235-7°. XXX (5.2 g.) in 100 cc. 2N NaOH heated 2 hrs. on the steam bath with 100 cc. 2N NaOH, cooled, and adjusted with 5N HCl to pH 2 yielded 3.5 g. III (R = R' = H, X = NH2, Y = Cl), decomp. 232-3°, which with CH2N2-THF gave the Me ester, m. 225°. VIII converted to the amide, m. 221°, and then heated 2 hrs. on the steam bath with 4 parts XIV gave the amide of XXIX, m. 226-7° (aq. EtOH). XXIX with CH2N2-THF gave the Me ester of XXIX, m. 137° (AcOEt-petr. ether). XXIX (3.3 g.) in 50 cc. EtOH heated 1 hr. on a steam bath with 1.5 cc. aq. CH2O and 2 cc. N NaOH and treated with 150 cc. 1% AcOH yielded 2.9 g. 4-furylmethyl-2,3-dihydro-4H- analog of XXX, decomp. 223-4° with blackening and gas evolution. VIII (4.0 g.) in 12.0 cc. 2-tetrahydrofurylmethylamine stirred 1 hr. at 110° and poured into 80 cc. 2N HCl gave 2.7 g. XIII (R = R' = R'' = H, R''' = 2-tetrahydrofurylmethyl, X = Cl), m. 217-18° (75% EtOH).

IT **4793-39-9**, Anthranilic acid, 4-chloro-N-cyclohexyl-5-sulfamoyl- (prepn. of)

RN 4793-39-9 HCAPLUS

CN Benzoic acid, 5-(aminosulfonyl)-4-chloro-2-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 43 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1966:3908 HCAPLUS
DOCUMENT NUMBER: 64:3908
ORIGINAL REFERENCE NO.: 64:651e-h
TITLE: 4-Amino-2,3,5-tetrafluorobenzenesulfonamides
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
SOURCE: 31 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 659230		19650803	BE	
GB 1031082			GB	
NL 6501375			NL	

PRIORITY APPLN. INFO.: GB 19640204

GI For diagram(s), see printed CA Issue.

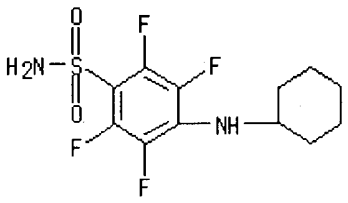
AB Compds. of the general formula I are prepd. and can be used as anticonvulsive agents. Thus, a mixt. of 8 parts piperidine, 10 parts pentafluorobenzenesulfonamide, and 100 parts ether is agitated 10 min. at room temp., cooled to 0-5°, filtered, and the filtrate is evapd. to give 4-piperi-dino-2,3,5,6-tetrafluorobenzenesulfonamide, m. 184-9°

(aq. EtOH). Similarly prepd. are the following I (X, R, and m.p. given): MeNH, H, 154-5° (H2O); Me2N, H, 194-5° (EtOH); iso-PrNH, H, 165-6° (aq. EtOH); cyclopentylamino, H, 178-9° (aq. EtOH); cyclohexylamino, H, 136-8° (aq. EtOH); 1-pyrrolidinyl, H, 190-1° (aq. EtOH); morpholino, H, 226-7° (EtOH); 4-methylpiperazino, H, 198-200° (aq. EtOH); NH2, Me, 175-6° (aq. EtOH); NH2, Et, 158-60°; NH2, iso-Pr, 144-5° (C6H6); cyclohexylamino, Me, 104-6° (aq. EtOH); cyclohexylamino, Et, 128-30° (aq. EtOH); cyclohexylamino, iso-Pr, 122-4° (C6H6-petroleum ether); piperidino, Me, 136-8° (C6H6-petroleum ether); piperidino, Et, 91-3° (aq. EtOH); piperidino, iso-Pr, 94-6° (aq. EtOH); HOCH2CH2NH, H, 143-5° (H2O); BuNH, H, 105-6° (aq. EtOH); cyclohexylamino, H, -- [Na salt m. 246-8° (decompn.)]; piperidino, H, -- [Na salt m. 286-8° (decompn.)]; hexamethylenimino, H, 138-9° (C6H6-petroleum ether); MeNH, Me, 180-1° (aq. EtOH); iso-PrNH, iso-Pr, 116-17° (aq. EtOH).

IT **4408-99-5**, Sulfanilamide, N4-cyclohexyl-2,3,5,6-tetrafluoro- (prepn. of)

RN 4408-99-5 HCAPLUS

CN Sulfanilamide, N4-cyclohexyl-2,3,5,6-tetrafluoro- (7CI, 8CI) (CA INDEX NAME)



L6 ANSWER 44 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1964:404109 HCAPLUS
DOCUMENT NUMBER: 61:4109
ORIGINAL REFERENCE NO.: 61:617d-g
TITLE: 5-Dimethylsulfamoyl-2-anilinobenzoic acids
PATENT ASSIGNEE(S): CIBA Ltd.
SOURCE: 44 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 629369		19631021	BE	
FR 1353208			FR	
FR M2598			FR	
GB 997176			GB	
PRIORITY APPLN. INFO.:			CH	19620309
			CH	19620530

GI For diagram(s), see printed CA Issue.

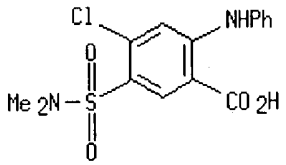
AB Compds., most of them of type I and II, have antiphlogistic, antipyretic, analgesic, and antiallergic properties. There were prepd. by various methods: To a soln. of 120 g. Me2NH in 1 l. H2O was slowly added at room temp. 140 g. 2,4-dichloro-5-chlorosulfonylbenzoic acid to give 2,4-dichloro-5-dimethylsulfamoylbenzoic acid (III), m. 180-3° (EtOH). A mixt. of 20 g. III, 11.6 g. K2CO3, and 0.5 g. CuO was heated

for 2 hrs. in an oil bath at 190-200° to yield 2-anilino-4-chloro-5-dimethylsulfamoylbenzoic acid, m. 210-14°. Similarly prepd. were 2-anilino-3-methyl-5-dimethylsulfamoylbenzoic acid, m. 220-3°, 2-anilino-5-morpholinosulfonylbenzoic acid, m. 221-2°, and the following I (R, R1, and m.p. given): H, H (IV), 200-1° [Me ester m. 118-19°; amide m. 215-17°; acid chloride (V) m. 154-5°]; 2-Me, 3-Me, 194-5°; H, 4-Cl, 199-202°; H, 3-Cl, 184-6°; 2-MeO, 5-MeO, 196-7°; 2-MeO, 4-MeO, 184-6°; H, 4-MeO, 172-4°; H, 3-CF3,203-4°. A soln. of 8 g. V, 4.8 g. N-methylpiperazine, and 150 cc. C6H6 was refluxed 3 hrs. to give II (R = N-methylpiperazino), m. 154-5° (EtOH). To 30 cc. boiling EtOH was added 10 g. IV and then 30 cc. 40% HCHO to give 1-phenyl-6-dimethylsulfamoyl-2H-3,1-benzoxazin-4-one (VI), m. 148-50°. A soln. of 10 g. VI, 15 g. Et2NCH2CH2NH2, and 100 cc. EtOH was refluxed 5 hrs. to yield II (R = Et2NCH2CH2NH), m. 88-90° (ligroine). Also prepd. were II (R and m.p. given): EtNH, 160-1°; Me(CH2)5NH, 126-7°.

IT **92551-66-1**, Anthranilic acid, 4-chloro-5-(dimethylsulfamoyl)-N-phenyl-
(prepn. of)

RN 92551-66-1 HCAPLUS

CN Anthranilic acid, 4-chloro-5-(dimethylsulfamoyl)-N-phenyl- (7CI) (CA INDEX NAME)



L6 ANSWER 45 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1962:429671 HCAPLUS
DOCUMENT NUMBER: 57:29671
ORIGINAL REFERENCE NO.: 57:5928d-i,5929a-g
TITLE: Diuretics. VI. 1,2,4-Benzothiadiazine 1,1-dioxides substituted at 2,3,4- and 7-N-sulfamoyl poisitions
AUTHOR(S): Whitehead, Calvert W.; Traverso, John J.
CORPORATE SOURCE: Lilly Res. Labs., Indianapolis, IN
SOURCE: Journal of Organic Chemistry (1962), 27, 951-6
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.

AB cf. CA 55, 27357f. Fluorobenzenes were chlorosulfonated to 2,4-bis(chlorosutfonyl)fluorobenzenes and converted in turn to 2,4-disulfamoylanilines (I) and 4-substituted 1,2,4-benzothiadiazine 1,1-dioxides (II) and their 3,4-dihydro analogs (III) ClSO3H (1 kg.) stirred with dropwise addn. of 100 g. 1,3-ClC6H4F and the mixt. heated gradually with addn. of 400 g. NaCl at 120°, the mixt. heated to 160° and the temp. maintained 4 hrs. (HCl adsorbed on H2O flowing over porcelain chips), the thick mixt. added to crushed ice and the H2O-washed product taken up in Et2O, the H2O-washed and dried Et2O evapd. yielded 130 g. 5,2,4-Cl(SO2Cl)2C6H2F (IV), m. 105-7° (Et2O-petr. ether). Similar conversion of 1,3-FC6H4Me yielded 56% 5,2,4-Me(SO2Cl)2C6H2F (V), m. 97°. IV (100 g.) added portionwise to a large excess of liquid NH3 and the product on evapn. of NH3 yielded

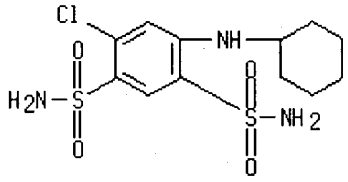
90% 5,2,4-Cl(H2NSO2)2C6H2F (VI), m. 223-4°. Similarly was prepd. from V in 90% yield 5,2,4-Me(H2NSO2)2C6H2F (VII), m. 210°. VI (VII) (0.1 mole), 0.15 mole NEt3, and 0.1 mole appropriate primary amine, RNH2, heated 1-2 hrs. on a steam bath in dil. alc. and the concd. soln. dild. with H2O, neutralized with dil. HCl, and the products recrystd. from dil. alc. gave the tabulated I (R, X, % yield, and m.p. given): Me, Cl, 70, 249°; Et, Cl, 70, 165°; (CH2)2OMe, Cl, 51, 165°; Pr, Cl, 50, 188°; Ph, Cl, 40, 230-40°; C6H11, Cl, 64, 214°; PhCH2, Cl, 50, 200°; Me, Me, 31, 243°; Et, Me, 20, 170°; (CH2)2OH, Me, 51, 205°; (CH2)2OMe, Me, 35, 147°; Ph, Me, 73, 178°; C6H11, Me, 55, 208°; PhCH2, Me, 30, 198°; (CH2)2OPh, Me, 70, 192°. I (10 g.) refluxed 4 hrs. in 50-75 ml. HCO2H and the hot concd. soln. dild. with H2O, the product washed free from acid with H2O and recrystd. from dil. alc. or alc.-H2O-HCONMe2 gave the listed II (R, X, % yield, and m.p. given): Me, Cl, 65, 280°; Et, Cl, 75, 260; Pr, Cl, 57, 252°; MeO(CH2)2, Cl, 78, 280°; Ph, Cl, 57, 244°; C6H11, Cl, 60, 250°; PhCH2, Cl, 54, 272°; Me, Me, 50, 310°; (CH2)2OH, Me, 60, 264°; HO2C(CH2)2, Me, 58, 272°; Ph, Me, 40, 195°; C6H11, Me, 50, 261°; PhCH3, Me, 51, 250°; PhO(CH2)2, Me, 55, 262°; Ph(CH2)2, Me, 73, 222°. II (5 g.) in hot alc. hydrogenated at 80°/1000 lb./sq. in. over PtO2, the filtered soln. concd. and the product recrystd. from dil. alc. yielded III (R, X, % yield, m.p. given): Me, Cl, 60, 245°; Et, Cl, 70, 205°; MeO(CH2)2, Cl, 50, 232°; C6H11, Cl, 70, 215°; Me, Me, 92, 245°; PhCH2, Cl, 70, 192°; Ph(CH2)2, Me, 81, 198°; PhO(CH2)2, Me, 80, 200°. The appropriate aldehyde (0.01 mole) and 0.01 mole 5-chloro-2-(N-methylsulfamoyl)-4-sulfamoylaniline (Close, et al., CA 54, 12150b) in 40 ml. warm 1:1 alc.-6N HCl kept at 20° and the product washed several times with H2O, dried, and recrystd. from dil. alc. gave 6-chloro-3,4-dihydro-2,3-disubstituted-7-sulfamoyl-1,2,4-benzothiadiazine 1,1-dioxides (VIII). HCONMe (150 ml.) contg. 0.4 mole 6-chloro-3,4-dihydro-3-oxo-7-sulfamoyl-.1,2,4-beuzothiadiazine 1,1-dioxide treated with 0.4 mole Nail and the mixt. heated 1 hr. at 70° with 0.4 mole PhCH2Cl, the cooled mixt. poured into 4 l. H2O and the product recrystd. from H2O yielded 25% 2-benzyl-6-chloro-3,4-dihydro-3-oxo-7-sulfamoyl-1,2,4-benzothiadiazine 1,1-dioxide (IX), m. 243, also obtained in 84% yield by using PhCH2Br 12 hrs. at 70°. IX (18 g.) refluxed 8 hrs. in 200 ml. 20% NaOH and the cooled filtered soln. acidified with concd. HCl yielded 64% 2-(N-benzylsulfamoyl)-5-chloro-4-sulfamoyl-. aniline (X), m. 155° (dil. alc.). X (2 g.) in 250 ml. hot H2O stirred with dropwise addn. of 1.5 g. 37% formalin and the soln. refluxed 1.5 hrs., cooled and the product crystd, from dil. alc. and from alc. gave VIII. X (2 g.) and an equimolar amt. of the appropriate aldehyde in 20 ml. 1:1 alc.-6N HCl kept 2-3 hrs. at 20° and the mixt. dild. with H2O, the residue on filtration washed with H2O and recrystd. from dil. alc. gave 6-chloro-3,4-dihydro-7-sulfamoyl-1,2,4-benzothiadiazine 1,1-dioxides VIII (R, R', % yield, and m.p. given): furfuryl, Me, 70, 240°; cyclopentylmethyl, Me, 75, 235°; 6-methyl-3-cyclohexenyl, Me, 71, 234°; 5-norbornen-2-yl, Me, 50, 260°; 3-methylcyclopentylmethyl, Me, 80, 235°; cyclohexylmethyl, Me, 68, 282°; 3-methyl-5-norbornen-2-yl, Me, 50, 246°; cycloheptylmethyl, Me, 75, 275°; H, PhCH2, 50, 226°; Ph, PhCH2, 78, 233°; cyclopentylmethyl, PhCH2, 75, 210°. PhCH2NH2 (0.2 mole) and 0.02 mole NEt3 in 200 ml. dioxane treated with 26 g. 5-chloro-2,4-bis(chlorosulfonyl)aniline in 150 rnl. dioxane, the mixt. dild. with H2O, concd. in vacuo and the solid recrystd. from alc., the product (14 g. 5-chloro-2,4-bis(N-benzylsulfamoyl)aniline, m. 160°) refluxed 6 hrs. in 50 ml. 98% HCO2H and the acid evapd. in vacuo gave 7 g. 7-(N-benzylsulfamoyl)-6-chloro-1,2,4-benzothiadiazine

1,1-dioxide, m. 268-70°. HCO2H (5 ml., 98%) contg. 0.2 g. 2-(N-benzylsulfamoyl)-5-chloro-4-sulfamoylaniline refluxed 1 hr. and the product crystd. yielded 73% 6-chloro-7-sulfamoyl-1,2,4-benzothiadiazinc 1,1-dioxide, m. 342-3°. The appropriate alkylamine in dioxane treated with 5,2,4-Cl(SO2Cl)C6H2NH2 according to the Schotten-Baumann procedure gave the 5-chloro-2,4-bis(N-alkylsulfamoyl)anilines, 5,2,4-Cl(SO2NHR)2C6H2NH2 (XI). XI (8 g.) refluxed 3-4 hrs. in 50 ml. 98% HCO2H, the acid soln. concd. in vacuo, and the solid recrystd. from EtOAc gave the corresponding formanilides, 5,2,4-Cl(SO2NHR)2C6H2NHCHO (XII) as tabulated (series, R, % yield, and m.p. given): XI, Et, 67, 184°; XI, H2C:CHCH2, 42, 130°; XI, Pr, 63, 120°; XII, Et, 50, 152°; XII, H2C:CHCH2, 49, 140°; XII, Pr, 49, 152°. Alkyl, aralkyl, oraryl substituents attached to the 4-position of 6-chloro-7-sulfamoyl-1,2,4-benzothiadiazine 1,1-dioxide nullified the saluretic activity in the dose range 0.5-5.0 mg./kg. An alkyl substituent in the 4-position of 6-chloro-3,4-dihydro-7-sulfamoyl-1,2,4-benzothiadiazine 1,1-dioxide also caused almost complete loss of activity. Other comparisons revealed interesting differences in the phys. properties and biol. activities of these compds.

IT **14558-87-3**, m-Benzenedisulfonamide, 4-chloro-6-(cyclohexylamino)- (prepn. of)

RN 14558-87-3 HCAPLUS

CN 1,3-Benzenedisulfonamide, 4-chloro-6-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 46 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1962:403853 HCAPLUS
DOCUMENT NUMBER: 57:3853
ORIGINAL REFERENCE NO.: 57:735e-i,736a-c
TITLE: Halodisulfamoylanilines
INVENTOR(S): Novello, Frederick C.
PATENT ASSIGNEE(S): Merck & Co., Inc.
SOURCE: 5 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3019245		19620130	US	19591123

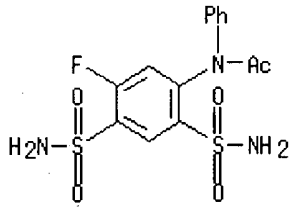
AB Continuation-in-part of U.S. 2,809,194 CA 52, 2939h. m-Chloroaniline (64 g.) added dropwise to 375 ml. chlorosulfonic acid (I), 350 g. NaCl added during 1-2 hrs., the mixt. heated to 150.degree., after 3 hrs. at 150-60.degree. treated with cold H2O, extd. with Et2O, and the product crystd. gave 5-chloroaniline-2,4-disulfonyl chloride (Ia), m. 130-2.degree.. Ia treated 1 hr. on the steam bath with 150 ml. 28% NH4OH gave 5-chloro-2,4-disulfamoylaniline, m. 251-2.degree.. Similarly, 15.2 g. o-chloroacetanilide with 120 ml. I and 100 g. NaCl gave the disulfonyl chloride and NH4OH converted the chloride to 6-chloro-2,4-□ disulfamoylaniline, m. 242-4.degree.. m-Bromoaniline (86 g.), 375 ml. I, and 350 g. NaCl followed by NH4OH gave 5-bromo-2,4-disulfamoylaniline, m.

265-7.degree.. Similarly, m-toluidine gave 2,4-disulfamoyl-5-□ methylaniline, m. 246-7.degree.. 5-Amino-2-chlorobenzenesulfonic acid gave 4chloro-2,5-disulfamoylaniline, m. 289-90.degree.. I (150 ml.) added dropwise in 0.5 hr. to 24.6 g. cold m-anisidine, 140 g. NaCl added in 1 hr., the mixt. heated 2 hrs. on the steam bath then 3 hrs. at 150-60.degree., the intermediate treated with NH4OH, and crystd. gave 2,4-disulfamoyl-5-methoxyaniline, m. 252-3.degree.. Similarly, m-nitroaniline (27.6 g.) gave 2,4disulfamoyl-5-nitroaniline (III), m. 260-2.degree.. II (3 g.) in 150 ml. alc. shaken with H over 250 mg. PtO2 gave 5-amino-2,4-disulfamoylaniline, m. 245-6.degree.. Ia (3.8 g.) in 10 ml. Ac2O left 0.5 hr. at room temp. and the intermediate 5-chloroacetanilide-2,4-disulfonyl chloride treated with liquid NH3 gave 5-chloro-2,4-disulfamoylacetanilide, m. 261-2.degree. (decompn.). Ia (6.6 g.) treated 17 hrs. at room temp. with 10 ml. BzCl and the product treated with liquid NH3 gave N-benzoyl-5-chloro-2,4-disulfamoylaniline, m. 266.degree. (decompn.). Ia (5.4 g.) treated 1 hr. at room temp. with 10 ml. butyric anhydride in 10 ml. C6H6 and the product treated with liquid NH3 gave N-butyryl-5-chloro-2,4-disulfamoylaniline. Ia (5 g.) treated with 10 ml. caproic anhydride 2 hrs. at room temp. then with liquid NH3 gave N-caproyl-5chloro-2,4-disulfamoylaniline, m. 213-15.degree.. m-Fluoroaniline similarly treated gave 5-fluoro-2,4-disulfonyl chloride, and this in PhCH2COCl left 17 hrs. at room temp. gave 5 - fluoro - N-phenylacetylaniline- 2,4- disulfonyl chloride, which with liquid ammonia afforded 2,4-disulfamoyl-5fluoro-N-phenylacetylaniline. Ia (6.6 g.) added portionwise to 50 ml. 40% MeNH2, warmed 1 hr., and collected gave 5-chloro-2,4-bis(N-methylsulfamoyl)aniline (III), m. 175.5-8.0.degree.. III (2.8 g.) and 4 ml. Et orthoformate heated 1 hr. at 110-30.degree., then 15 min. at 130-50.degree., and crystd. gave 5- chloro - 2,4 - bis(N - methylsulfamoyl) - N - formylaniline, plates, m. 192-5.degree.. 5-Chloro-2,4-disulfamoylaniline (2.9 g.) left 1 hr. with 10 ml. Ac2O and 2 drops concd. H2SO4 gave 5-chloro-2,4-bis(N-acetylsulfamoyl)acetanilide, m. 222-4.degree.. Ia (9.7 g.) treated with piperidine 3 hrs. on the steam bath gave 5-chloro-2,4-bis(1-piperidylsulfonyl)aniline, m. 162-4.degree.. Ia (9.7 g.) similarly heated 1.5 hrs. with 100 ml. 25% NHMe2 gave 5-chloro-2,4-bis(N,N-dimethylsulfamoyl)aniline, m. 182-2.5.degree.. 5-Chloro-2,4-disulfamoyl-N-methylaniline was similarly obtained, m-Butyl-N-propylaniline was similarly converted to 5-butyl-2,4-bis(N-□ butylsulfamoyl)-N, N-lauroylpropylaniline. 2,4-Bis(N-butyl-N-□ ethylsulfamoyl)-5-methylaniline, 5-propoxy-2,4-bis(morpholinosulfonyl)-N-□ butylaniline, and 2,4-bis(N,N-dimethylsulfamoyl)-5-propoxy-N-□ cinnamoylaniline were similarly prepd. 5-Chloro-2,4-disulfamoylaniline in alc. NaOH gave the Na salt. A formulation was given for 5-chloro-2,4-disul-famoylaniline in a compressed tablet. The compds. were diuretics or natriuretics.

IT **1513-12-8**, Acetanilide, 5'-fluoro-N-phenyl-2',4'-disulfamoyl- (prepn. of)

RN 1513-12-8 HCAPLUS

CN Acetanilide, 5'-fluoro-N-phenyl-2',4'-disulfamoyl- (7CI, 8CI) (CA INDEX NAME)



L6 ANSWER 47 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

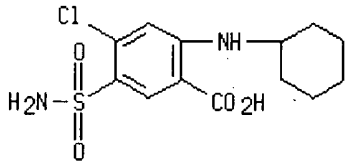
ACCESSION NUMBER: 1962:73016 HCAPLUS
DOCUMENT NUMBER: 56:73016
ORIGINAL REFERENCE NO.: 56:14032e-i,14033a,14034a
TITLE: Sulfamoylanthranilic acids
INVENTOR(S): Sturm, Karl; Siedel, Walter; Weyer, Rudi
PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1122541		19620125	DE	19591228
GB 936417			GB	
US 3058882		1962	US	

AB Title compds. were prepd. by the reaction of appropriate amines with 4,6-dichlorobenzoic acid-3-sulfonyl chloride (I). Heating 2,4-dichlorobenzoic acid (170°) with a 4-6-fold excess of ClSO3H produced I, which was isolated in 85-95% yield when the cooled reaction mixt. was poured into icewater, m. 185°. Low temp. reactions with amines resulted in dichlorosulfamoylbenzoic acids. Higher temps. caused the 6-Cl to be replaced by the amine present. The 4-Cl was not replaced at ordinary temps. even when a large excess of amine was present. To 100 ml.liquid NH3 was added 29 g. I in small portions. After evapn. of the NH3 the residue was treated with 300 ml. 2N HCl. The yield of 3-sulfamoyl-4,6-dichlorobenzoic acid (II) was 22.2 g. after recrystn. from MeOH-H2O (1:2), m. 233-5°. A soln. of 20 g. II in 200 ml. NH4OH under N was heated 3 hrs. at 170°/50 atm. The reaction mixt. was evapd. to 1/2 vol. and acidified (pH 2) with concd. H2SO4. The product sepd. after 2 hrs. at 0°, was washed and dried at 100°; yield, 15.4 g., m. 271.5° (decompn.) (EtOH-H2O). Other 3-sulfamoyl-4-chlorobenzoic acids prepd. were: 6-benzylamino, 26 g. from 27 g. II, 244.5° (decompn.) (EtOH), dicyclohexylamine salt, m. 209-10° (acetone-H2O, 1:2), Mg salt also prepd. (water-insol.); 6-piperidino, 10.4 g. from 10.8 g. II, m. 224° (decompn.) (50% MeOH); 6-(β-hydroxyethylamino), 7.2 g. from 10 g. II, m. 245-6° (decompn.) (aq. EtOH); 6-anilino, 47%, m. 245° (decompn.) (aq. MeOH); 6-allylamino, 15.4 g. from 20 g. II, m. 218° (decompn.) (50% EtOH); 6-cyclohexylamino, 8.9 g. from 10.8 g. II, m. 248-9° (decompn.) (EtOH); 6-(β-phenylethylamino), 12.2 g. from 10.8 g. II, m. 214° (decompn.) (EtOH); 6-diethylamino 8.8 g. from 10.8 g. II, m. 212-14° (aq. EtOH); 6-furfurylamino, 31%, m. 206° (decompn.) (aq. EtOH); 6-methylamino, m. 264°; 6-EtSC2H4NH, m. 192-3°; 6-n-octylamino, 209-11°; 6-benzylamino 221-3°; 6-benzylmethylamino, 202°; 6-(4-chlorobenzyl)amino, m. 240-2°; 6-(4-methoxybenzyl)amino, 191°. Some 4-Br analogs prepd. were: 6-benzylamino, m. 247° (decompn.) (EtOH), 8.2 g. from 10.8 g. 3-sulfamoyl-4,6-dibromobenzoic acid, m. 242-3° (aq. HCONMe2); 6-isobutylamino, 239-40°; 6-MeO(CH2)3, 198-9°. Other 4-chlorobenzoic acids prepd. were: 3-methylaminosulfonyl-6-methylamino, 7.8 g. from 10 g. I, heated with 25% aq. MeNH2 2 hrs. at 130°/50 atm. N., m. 235-7° (decompn.) (33% EtOH); 3,6-MeNHSO2(PhCH2NH), m. 248° (EtOH), 10 g. from 11.3 g. 4,6,3-Cl2MeNHSO2)C6H2CO2H, m. 198-200°, prepd. from 14.5 g. I. Some of these compds. have therapeutic value as diuretic and saluretic agents; as the latter, Na was removed to a much greater extent than K.

IT **4793-39-9**, Anthranilic acid, 4-chloro-N-cyclohexyl-5-sulfamoyl-
(prepn. of)

RN 4793-39-9 HCAPLUS
CN Benzoic acid, 5-(aminosulfonyl)-4-chloro-2-(cyclohexylamino)- (9CI) (CA INDEX NAME)



L6 ANSWER 48 OF 48 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

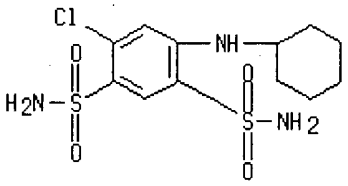
ACCESSION NUMBER: 1962:66743 HCAPLUS
DOCUMENT NUMBER: 56:66743
ORIGINAL REFERENCE NO.: 56:12805b-f
TITLE: Benzene disulfonamides
INVENTOR(S): Siedel, Walter; Sturm, Karl; Weyer, Rudi
PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1119290		19611214	DE	19591107
GB 965089			GB	

AB 5-Chloro-N-alkylaniline-2,4-disulfonamides were prepd. 4,6-Cl2C6H2(SO2Cl)2-1,3 (I), m. 122-3°, (35 g.) was added in portions to 150 ml. liquid NH3. After evapn. the residue was treated with 300 ml. N HCl to give 26.5 g. 4,6-dichlorobenzene-1,3-disulfonamide (II), m. 276-8° (H2O-EtOH). A soln. of 9.15 g. II in 100 ml. 25% NH4OH was heated in an autoclave 3 hrs. at 120° under 50 atm. N. The mixt. was concd. to 70 ml. and treated with concd. HCl. After 1 hr. at 0° 6.9 g. 5-chloroaniline-2,4-disulfonamide (III), m. 252-3° (H2O-EtOH), was obtained. When the reaction was run without isolation of II, 10.3 g. I gave 5.8 g. III. Similarly prepd. from the corresponding amines were the following N-alkylated derivs.: Et, m. 187-9°; allyl, m. 192-3°; (CH2)2OH, m. 1968°; iso-Bu, m. 183-5°; cyclopentyl, m. 184-5°; cyclohexyl, m. 218-29°; (CH2)2SMe, m. 200-2°; (CH2)3OMe, m. 134-6°, 151°; CH2Ph, m. 213-14°; Ph, m. 244-6°; (CH2)2Ph, m. 215-17°; CH2CH(OEt)2, m. 172°; 4-ClC6H4CH2, m. 243°; (CH2)3OEt, m. 157-9°; n-C8H17, m. 175-7°; m-ClC6H4, m. 244-6°; m-BrC6H4, m. 235-6°; p-MeOC6H4, m. 235-7°. I with pyrrolidine (IV) in tetrahydrofuran yielded 5-chloro-1-pyrrolidinobenzene-2,4-disulfopyrrolidide, m. 138°. II with IV in EtOH gave 1-pyrrolidino, m. 164-6°, with morpholine 1-morpholino analogs, m. 260-1°. I with MeNH2 in EtOH gave 5-chloro-N-methylaniline-2,4-disulfonmethylamide, m. 204-6°. I with MeNH2 in tetrahydrofuran gave the 2,4N,N'-dimethyldisulfonamide, m. 187-9°, which with PhCH2NH2 (V) gave the corresponding N-benzylaniline, m. 186-7°. 4,6-Br2C6H2(SO2Cl)2-1,3, m. 153°, was treated in liquid NH3 to give 4,6-dibromobenzene-1,3-disulfonamide, m. 280-2°, which with V gave 5-bromo-N-benzylaniline-2,4-disulfonamide, m. 220-2°.

IT **14558-87-3**, m-Benzenedisulfonamide, 4-chloro-6-(cyclohexylamino)- (prepn. of)

RN 14558-87-3 HCAPLUS
CN 1,3-Benzenedisulfonamide, 4-chloro-6-(cyclohexylamino)- (9CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	257.23	414.96

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-35.28	-35.28

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DICTIONARY FILE UPDATES: 2 JUL 2004 HIGHEST RN 703404-07-3

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.84	415.80

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-35.28

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STRUCTURE FILE UPDATES:    2 JUL 2004  HIGHEST RN 703404-07-3
DICTIONARY FILE UPDATES:   2 JUL 2004  HIGHEST RN 703404-07-3

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

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information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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L11     STRUCTURE UPLOADED

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L11 HAS NO ANSWERS
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FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           68 TO      532
PROJECTED ANSWERS:               0 TO        0

L12           0 SEA SSS SAM L11

=> s l11 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 15:05:55 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    247 TO ITERATE

100.0% PROCESSED     247 ITERATIONS                               0 ANSWERS
SEARCH TIME: 00.00.01

L13           0 SEA SSS FUL L11

=>
L14     STRUCTURE UPLOADED

=> d l14
L14 HAS NO ANSWERS
L14             STR

=> s l14
SAMPLE SEARCH INITIATED 15:06:51 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     15 TO ITERATE
```

```
100.0% PROCESSED      15 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           68 TO      532
PROJECTED ANSWERS:               0 TO        0

L15           0 SEA SSS SAM L14

=> s l14 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 15:06:59 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    247 TO ITERATE

100.0% PROCESSED     247 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L16           0 SEA SSS FUL L14

=>
L17     STRUCTURE UPLOADED

=> d l17
L17 HAS NO ANSWERS
L17             STR

=> s l17
SAMPLE SEARCH INITIATED 15:08:08 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     15 TO ITERATE

100.0% PROCESSED      15 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           68 TO      532
PROJECTED ANSWERS:               0 TO        0

L18           0 SEA SSS SAM L17

=> s l17 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 15:08:15 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    247 TO ITERATE

100.0% PROCESSED     247 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L19           0 SEA SSS FUL L17

=>
L20     STRUCTURE UPLOADED

=> d l20
L20 HAS NO ANSWERS
L20             STR
```

```
=> s l20
SAMPLE SEARCH INITIATED 15:09:21 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      15 TO ITERATE

100.0% PROCESSED       15 ITERATIONS                                  0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           68 TO       532
PROJECTED ANSWERS:               0 TO         0

L21            0 SEA SSS SAM L20

=> s l20 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 15:09:29 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     247 TO ITERATE

100.0% PROCESSED      247 ITERATIONS                                  0 ANSWERS
SEARCH TIME: 00.00.01

L22            0 SEA SSS FUL L20

=>
L23      STRUCTURE UPLOADED

=> d l23
L23 HAS NO ANSWERS
L23              STR

=> s 123
SAMPLE SEARCH INITIATED 15:10:48 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      15 TO ITERATE

100.0% PROCESSED       15 ITERATIONS                                  0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           68 TO       532
PROJECTED ANSWERS:               0 TO         0

L24            0 SEA SSS SAM L23

=> s 123 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 15:10:57 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     247 TO ITERATE

100.0% PROCESSED      247 ITERATIONS                                  0 ANSWERS
SEARCH TIME: 00.00.01

L25            0 SEA SSS FUL L23

=>
```